# SEZ DUCTED HEAT PUMP SYSTEMS


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# 1. INDOOR UNITS

- SEZ-KD09NA4.TH
- SEZ-KD12NA4.TH
- SEZ-KD15NA4.TH
- SEZ-KD18NA4.TH

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## 2. OUTDOOR UNITS

- SUZ-KA09NA.TH
- SUZ-KA12NA.TH
- SUZ-KA15NA.TH
- SUZ-KA18NA.TH

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## 3. SYSTEM

- Horizontal-ducted indoor unit for concealed applications
- Ultra thin body: 7-7/8” high
- Built-in drain mechanism for condensate removal; lifts to 21-11/16”
- Quiet operation - as low as 23 dB(A)
- Choice of fan speeds: Low, Medium,  and High; Auto fan speed control also included
- Indoor unit powered from outdoor unit using A-control
- Self-check function -- onboard diagnostics
- Advanced microprocessor control
- Auto restart following a power outage
- Hand-held Wireless Remote Controller
- Anti-allergy Enzyme Filter
- Limited warranty: five years parts and seven years compressor


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# 3-1. SPECIFICATIONS

## SEZ-KD09NA4 SEZ-KD12NA4

| Model Name | | | | SEZ-KD09NA4 | | SEZ-KD12NA4 | |
|---|---|---|---|---|---|---|---|
| Capacity | | | | Cooling | Heating | Cooling | Heating |
| | | | BTU/h | 8100 | 10900 | 11500 | 13600 |
| Power source | | | | 208/230V (60Hz) | | 208/230V (60Hz) | |
| Power input | | | kW | 0.06 | 0.04 | 0.07 | 0.05 |
| Current | | | A | 0.51 | 0.39 | 0.57 | 0.46 |
| Temperature set range Remote controller | | | °F(°C) | 67 to 86 (19 to 30) | 63 to 83 (17 to 28) | 67 to 86 (19 to 30) | 63 to 83 (17 to 28) |
| Airflow direction | | | | - | | - | |
| Fan | Type x Quantity | | | Sirocco fan x 2 | | Sirocco fan x 2 | |
| | External static press | | in.WG(Pa) | 0.02-0.06-0.14-0.20 (5-15-35-50) | | 0.02-0.06-0.14-0.20 (5-15-35-50) | |
| | Blower type | | | DC brushless motor | | DC brushless motor | |
| | Blower motor output | | kW | 0.096 | | 0.096 | |
| | Driving mechanism | | | Direct-driven | | Direct-driven | |
| | Airflow rate(Low-Mid-High) | | $m^3$/min | 5.5-7.0-9.0 | | 7.0-9.0-11.0 | |
| | Airflow rate(Low-Mid-High) | | CFM | 194-247-317 | | 247-317-388 | |
| | Airflow rate(Low-Mid-High) | | L/S | 91-116-150 | | 116-150-183 | |
| External finish | | | | Galvanized | | Galvanized | |
| External dimension H x W x D | | | mm | 200 x 790 x 700 | | 200 x 990 x 700 | |
| | | | In. | 7-7/8 x 31-1/8 x 27-9/16 | | 7-7/8 x 39 x 27-9/16 | |
| Net weight | | | Lbs. | 42 | | 50 | |
| Wiring | Min.size of wire | | in.(mm) | 1/8 (1.6) | | 1/8 (1.6) | |
| | Amperage of wire breaker | | A | 15 | | 15 | |
| Refrigerant piping diameter | Liquid | R410A | in.(mm) | ø1/4 (ø6.35) Flare | | ø1/4 (ø6.35) Flare | |
| | Gas | R410A | in.(mm) | ø3/8 (ø9.52) Flare | | ø3/8 (ø9.52) Flare | |
| Drain piping diameter | | | in.(mm) | O.D. 1-9/32 (32) | | O.D. 1-9/32 (32) | |
| Sound level (Low-Mid-High) (measured in anechoic room) | | | dB<A> | 23-26-30 | | 23-28-33 | |
| Insulation material | | | | Polystyrene foam, Polyethylene foam, Urethane foam | | Polystyrene foam, Polyethylene foam, Urethane foam | |
| Air filter | | | | PP Honeycomb fabric (washable) | | PP Honeycomb fabric (washable) | |
| Refrigerant control device | | | | - | | - | |
| Protection devices | | | | Fuse (250V 6.3A) | | Fuse (250V 6.3A) | |
| Heat exchanger | | | | Cross fin (Aluminum fin and copper tube) | | Cross fin (Aluminum fin and copper tube) | |
| Varistor | | | | ERZV10D471 | | ERZV10D471 | |
| Terminal block | | | | To outdoor unit : 3P To wired remote controller : 2P | | To outdoor unit : 3P To wired remote controller : 2P | |
| Power outlet | | | A | 10 | | 10 | |
| Standard attachment | Document | | | Installation Manual, Instruction Book | | Installation Manual, Instruction Book | |
| | Accessory | | | Drain hose (flexible joint), Wired Remote Controller | | Drain hose (flexible joint), Wired Remote Controller | |
| Remark | | | | | | | |
| | | | | | | | |
| Note | 1.Cooling/Heating capacity indicates the maximum value at operation under the following condition.<br><Cooling> Indoor:80°FD.B. / 67°FW.B. (26.7°CD.B. / 19.4°CW.B.) Outdoor:95°FD.B. (35°CD.B.)<br><Heating> Indoor:70°FD.B. (21.1°CD.B.) Outdoor:47°FD.B. / 43°FW.B. (8.3°CD.B. / 6.1°CW.B.)<br>Pipe length:24-9/16ft (7.5m) Height difference:0ft (0m)<br>2.Power consumption. Run current at 0.06[in.WG] (15Pa) (external static pressure)<br>3.Cooling capacity value at 1:1system<br>Heating capacity value at 1:1system | | | | | | |

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## SEZ-KD15NA4 SEZ-KD18NA4

| Model Name | | | | SEZ-KD15NA4 | | SEZ-KD18NA4 | |
|---|---|---|---|---|---|---|---|
| Capacity | | | | Cooling | Heating | Cooling | Heating |
| | | | BTU/h | 14100 | 18000 | 17200 | 20100 |
| Power source | | | | 208/230V (60Hz) | | 208/230V (60Hz) | |
| Power input | | | kW | 0.09 | 0.07 | 0.09 | 0.07 |
| Current | | | A | 0.74 | 0.63 | 0.74 | 0.63 |
| Temperature set range Remote controller | | | °F(°C) | 67 to 86 (19 to 30) | 63 to 83 (17 to 28) | 67 to 86 (19 to 30) | 63 to 83 (17 to 28) |
| Airflow direction | | | | - | | - | |
| Fan | Type x Quantity | | | Sirocco fan x 3 | | Sirocco fan x 4 | |
| | External static press | | in.WG(Pa) | 0.02-0.06-0.14-0.20 (5-15-35-50) | | 0.02-0.06-0.14-0.20 (5-15-35-50) | |
| | Blower type | | | DC brushless motor | | DC brushless motor | |
| | Blower motor output | | kW | 0.096 | | 0.096 | |
| | Driving mechanism | | | Direct-driven | | Direct-driven | |
| | Airflow rate(Low-Mid-High) | | $m^3$/min | 10.0-12.5-15.0 | | 12.0-15.0-18.0 | |
| | Airflow rate(Low-Mid-High) | | CFM | 353-441-529 | | 423-529-635 | |
| | Airflow rate(Low-Mid-High) | | L/S | 167-208-250 | | 200-250-300 | |
| External finish | | | | Galvanized | | Galvanized | |
| External dimension H x W x D | | | mm | 200 x 990 x 700 | | 200 x 1190 x 700 | |
| | | | In. | 7-7/8 x 39 x 27-9/16 | | 7-7/8 x 46-7/8 x 27-9/16 | |
| Net weight | | | Lbs. | 54 | | 62 | |
| Wiring | Min.size of wire | | in.(mm) | 1/8 (1.6) | | 1/8 (1.6) | |
| | Amperage of wire breaker | | A | 15 | | 15 | |
| Refrigerant piping diameter | Liquid | R410A | in.(mm) | ø1/4 (ø6.35) Flare | | ø1/4 (ø6.35) Flare | |
| | Gas | R410A | in.(mm) | ø1/2 (ø12.7) Flare | | ø1/2 (ø12.7) Flare | |
| Drain piping diameter | | | in.(mm) | O.D. 1-9/32 (32) | | O.D. 1-9/32 (32) | |
| Sound level (Low-Mid-High) (measured in anechoic room) | | | dB<A> | 30-34-37 | | 30-34-38 | |
| Insulation material | | | | Polystyrene foam, Polyethylene foam, Urethane foam | | Polystyrene foam, Polyethylene foam, Urethane foam | |
| Air filter | | | | PP Honeycomb fabric (washable) | | PP Honeycomb fabric (washable) | |
| Refrigerant control device | | | | - | | - | |
| Protection devices | | | | Fuse (250V 6.3A) | | Fuse (250V 6.3A) | |
| Heat exchanger | | | | Cross fin (Aluminum fin and copper tube) | | Cross fin (Aluminum fin and copper tube) | |
| Varistor | | | | ERZV10D471 | | ERZV10D471 | |
| Terminal block | | | | To outdoor unit : 3P To wired remote controller : 2P | | To outdoor unit : 3P To wired remote controller : 2P | |
| Power outlet | | | A | 20 | | 20 | |
| Standard attachment | Document | | | Installation Manual, Instruction Book | | Installation Manual, Instruction Book | |
| | Accessory | | | Drain hose (flexible joint), Wired Remote Controller | | Drain hose (flexible joint), Wired Remote Controller | |
| Remark | | | | | | | |
| Note | 1.Cooling/Heating capacity indicates the maximum value at operation under the following condition.<br><Cooling> Indoor:80°FD.B. / 67°FW.B. (26.7°CD.B. / 19.4°CW.B.) Outdoor:95°FD.B. (35°CD.B.)<br><Heating> Indoor:70°FD.B. (21.1°CD.B.) Outdoor:47°FD.B. / 43°FW.B. (8.3°CD.B. / 6.1°CW.B.)<br>Pipe length:24-9/16ft (7.5m) Height difference:0ft (0m)<br>2.Power consumption. Run current at 0.06[in.WG] (15Pa) (external static pressure)<br>3.Cooling capacity value at 1:1system<br>Heating capacity value at 1:1system | | | | | | |

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## SUZ-KA09NA SUZ-KA12NA SUZ-KA15NA

| Model name | Indoor unit | | SEZ-KD09NA4.TH | SEZ-KD12NA4.TH | SEZ-KD15NA4.TH | SEZ-KD18NA4.TH |
|---|---|---|---|---|---|---|
| | Outdoor unit | | SUZ-KA09NA.TH | SUZ-KA12NA.TH | SUZ-KA15NA.TH | SUZ-KA18NA.TH |
| Cooling | Max. Capacity | Btu/h | 10,900 | 13,300 | 17,000 | 19,000 |
| | Rated Capacity | Btu/h | 8,100 | 11,500 | 14,100 | 17,200 |
| | Min. Capacity | Btu/h | 3,800 | 3,800 | 3,800 | 3,800 |
| | Total input | W | 670 | 920 | 1,170 | 1,380 |
| | EER | Btu/h | 12 | 12.5 | 12 | 12.5 |
| | SEER | Btu/h | 15 | 16 | 15.5 | 17.5 |
| | Moisture Removal | Pints/h | 1.5 | 2.4 | 2.6 | 3.4 |
| | SHF | | 0.80 | 0.76 | 0.80 | 0.79 |
| Heating | Max. Capacity | Btu/h | 14,100 | 16,400 | 21,100 | 24,900 |
| | Rated Capacity | Btu/h | 10,900 | 13,600 | 18,000 | 21,600 |
| | Min. Capacity | Btu/h | 4,800 | 4,800 | 4,800 | 4,800 |
| | Total input | W | 1,020 | 1,140 | 1,500 | 1,700 |
| | COP | W/W | 3.13 | 3.50 | 3.52 | 3.72 |
| | HSPF(IV) | Btu/h/W | 10.0 | 10.0 | 10.0 | 10.0 |
| Heating at low ambient | Max. Capacity | Btu/h | 6,700 | 9,000 | 11,900 | 12,100 |
| | Total input | W | 1,000 | 1,180 | 1,650 | 1,830 |
| | COP | W/W | 2.14 | 2.43 | 2.43 | 2.40 |
| Power supply | Phase,Cycle,Voltage | | 1phase, 60Hz, 208/230V | | | |
| | Breaker size | A | 15 | | | |
| Voltage | Indoor - Outdoor S1-S2 | | AC208 / 230V | | | |
| | Indoor - Outdoor S2-S3 | | DC 12 - 24V | | | |

NOTES : *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)
(heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F) Outdoor : D.B. 8.3°C(47°F), W.B. 6.1°C(43°F)
*2.Rating conditions(heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F) Outdoor : D.B. -8.3°C(17°F), W.B. -9.4°C(15°F)

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## SUZ-KA09NA SUZ-KA12NA SUZ-KA15NA

| Model name | Indoor unit | | SEZ-KD09NA4.TH | SEZ-KD12NA4.TH | SEZ-KD15NA4.TH | SEZ-KD18NA4.TH |
|---|---|---|---|---|---|---|
| | Outdoor unit | | SUZ-KA09NA.TH | SUZ-KA12NA.TH | SUZ-KA15NA.TH | SUZ-KA18NA.TH |
| Indoor unit | MCA | A | 1 | | | |
| | MOCP | A | 15 | | | |
| | Blower Motor | F.L.A | 0.51 | 0.57 | 0.74 | |
| | Blower Motor Output | W | 96 | | | |
| | Air flow (Lo-Mid-Hi) | DRY CMM | 5.5 - 7 - 9 | 7 - 9 - 11 | 10 - 12.5 - 15 | 12 - 15 - 18 |
| | | WET CMM | 4.9 - 6 - 8 | 6 - 8 - 10 | 9 - 11.2 - 14 | 11 - 14 - 17 |
| | Air flow (Lo-Mid-Hi) | DRY CMM | 194 - 247 - 317 | 247 - 317 - 388 | 353 - 441 - 529 | 423 - 529 - 635 |
| | | WET CMM | 174 - 222 - 285 | 222 - 285 - 349 | 317 - 396 - 476 | 381 - 476 - 572 |
| | External pressure | in.WG [Pa] | 0.02 / 0.06 / 0.14 / 0.20 [5/15/35/50] | | | |
| | Sound level (Lo-Mi-Hi) | dB (A) | 23 - 26 - 30 | 23 - 28 - 33 | 30 - 34 - 37 | 30 - 34 - 38 |
| | Dimension Unit | W:mm [inch] | 790 [31-1/8] | 990 [39] | | 1190 [46-7/8] |
| | | D:mm [inch] | 700 [27-9/16] | | | |
| | | H:mm [inch] | 200 [7-7/8] | | | |
| | Weight Unit | kg | 19 | 22 | 24 | 28 |
| | | lbs | 42 | 50 | 54 | 62 |
| | Field Drain pipe O.D. | mm [inch] | 32 [1-1/4] | | | |
| Remote Controller | | | Optional parts | | | |

NOTES : *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)
(heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F) Outdoor : D.B. 8.3°C(47°F), W.B. 6.1°C(43°F)
*2.Rating conditions(heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F) Outdoor : D.B. -8.3°C(17°F), W.B. -9.4°C(15°F)

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## SUZ-KA09NA SUZ-KA12NA SUZ-KA15NA

| | | | | | | |
|---|---|---|---|---|---|---|
| Model name | Indoor unit | | SEZ-KD09NA4.TH | SEZ-KD12NA4.TH | SEZ-KD15NA4.TH | SEZ-KD18NA4.TH |
| | Outdoor unit | | SUZ-KA09NA.TH | SUZ-KA12NA.TH | SUZ-KA15NA.TH | SUZ-KA18NA.TH |
| Outdoor unit | MCA | A | 12 | | | 14 |
| | MOCP | A | 15 | | | |
| | Blower Motor | F.L.A. | 0.50 | | | 0.93 |
| | Blower Motor Output | W | 55 | | | 77 |
| | Compressor | | KNB073FQDHC | KNB092FQAHC | SNB130FQBH | |
| | | R.L.A. | 6.6 | | 7.4 | 10 |
| | | L.R.A. | 8.2 | | 9.3 | 12.5 |
| | Air flow (Cooling/Heating) | CMM | 32.6 / 34.7 | 34.8 / 33.2 | 35.2 / 34.8 | 49 / 47 |
| | | CFM | 1,151 / 1,225 | 1,229 / 1,172 | 1,243 / 1,229 | 1,730 / 1,659 |
| | Refrigerant Control | | Linear Expansion Valve | | | |
| | Defrost Method | | Reverse Cycle | | | |
| | Sound level at cooling | dB (A) | 46 | 49 | 49 | 54 |
| | Sound level at heating | dB (A) | 50 | 51 | 51 | 56 |
| | External finish | | Ivory Munsell 3Y 7.8/1.1 | | | |
| | Dimension | W:mm [inch] | 800 [31-1/2] | | | 840 [33-1/16] |
| | | D:mm [inch] | 285 [11-1/4] | | | 330 [13] |
| | | H:mm [inch] | 550 [21-5/8] | | | 850 [33-7/16] |
| | Weignt | kg [lbs] | 30 [66] | 35 [77] | 36 [80] | 54 [119] |
| Refrigerant | Charge, R410 A | kg [lbs,oz] | 0.9 [1 lb 16 oz] | 1.15 [2 lb 9 oz] | | 1.80 [3 lb 16 oz] |
| | Oil | L [oz] | 0.32 (NEO 22) [10.8] | | 0.45 (NEO 22) [15.2] | |
| Refrigerant pipe size | Gas side O.D. | mm [inch] | 9.52 [3/8] | | 12.7 [1/2] | |
| | Liquid side O.D. | mm [inch] | 6.35 [1/4] | | | |
| Refrigerant pipe length | Height difference | | Max. 40 ft | | | Max. 50 ft |
| | Length | | Max. 65 ft | | | Max. 100 ft] |
| Refrigerant Piping | | | Not Supplied | | | |
| Connection Method | | | Flared | | | |

NOTES : *1.Rating conditions (cooling)-Indoor : D.B. 26.7°C(80°F), W.B. 19.4°C(67°F) Outdoor : D.B. 35°C(95°F), W.B. 23.9°C(75°F)
(heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F) Outdoor : D.B. 8.3°C(47°F), W.B. 6.1°C(43°F)
*2.Rating conditions(heating)-Indoor : D.B. 21.1°C(70°F), W.B. 15.6°C(60°F) Outdoor : D.B. -8.3°C(17°F), W.B. -9.4°C(15°F)

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## Efficiency Ratings

| Outdoor Unit | Indoor Unit | SEER | EER | HSPF | COP @ 47° F | COP @ 17° F | Energy Star | Tax Credit |
|---|---|---|---|---|---|---|---|---|
| **SEZ DUCTED HEAT PUMP SYSTEMS** | | | | | | | | |
| SUZ-KA09NA | SEZ-KD09NA4 | 15 | 12 | 10 | 3.13 | 2.14 | Yes | |
| SUZ-KA12NA | SEZ-KD12NA4 | 16 | 12.5 | 10 | 3.5 | 2.43 | Yes | Yes |
| SUZ-KA15NA | SEZ-KD15NA4 | 15.5 | 12 | 10 | 3.52 | 2.43 | Yes | |
| SUZ-KA18NA | SEZ-KD18NA4 | 17.5 | 12.5 | 10 | 3.72 | 2.4 | Yes | Yes |
| Note: | Efficiency values based on AHRI 210/240 test method. | | | | | | | |

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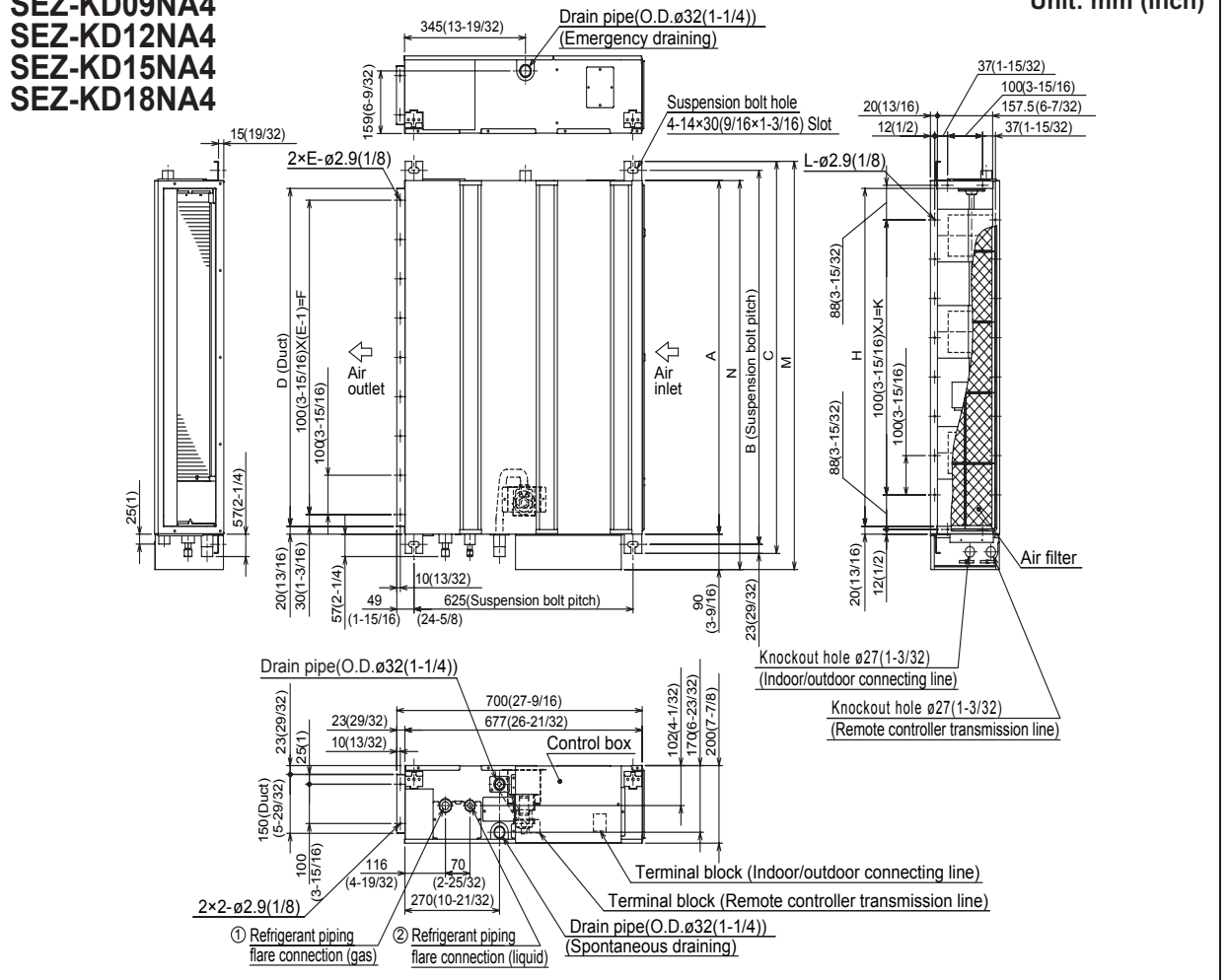
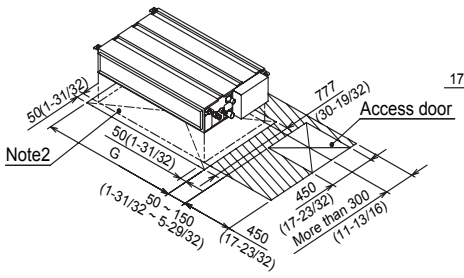
## 3-2. EXTERNAL DIMENSIONS

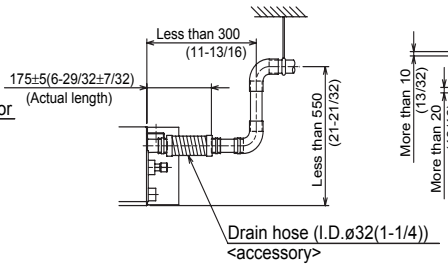
**SEZ-KD09NA4**
**SEZ-KD12NA4**
**SEZ-KD15NA4**
**SEZ-KD18NA4**

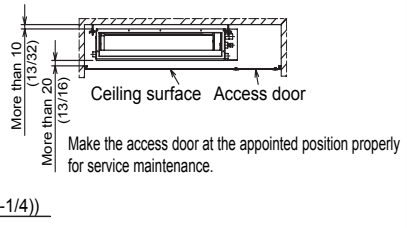
**Unit: mm (inch)**




Required space for service and maintenance




mm(in.)

| Model | A | B | C | D | E | F | G | H | J | K | L | M | N | ① Gas pipe | ②Liquid pipe |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SEZ-KD09NA4 | 700 (27-9/16) | 752 (29-5/8) | 798 (31-7/16) | 660 (26) | 7 | 600 (23-5/8) | 800 (31-1/2) | 660 (26) | 5 | 500 (19-11/16) | 16 | 839 (33-1/16) | 790 (31-1/8) | ø9.52(3/8) | ø6.35(1/4) |
| SEZ-KD12NA4 | 900 (35-7/16) | 952 (37-1/2) | 998 (39-5/16) | 860 (33-7/8) | 9 | 800 (31-1/2) | 1000 (39-3/8) | 860 (33-7/8) | 7 | 700 (27-9/16) | 20 | 1039 (40-29/32) | 990 (39) | | |
| SEZ-KD15NA4 | | | | | | | | | | | | | | ø12.7(1/2) | |
| SEZ-KD18NA4 | 1100 (43-5/16) | 1152 (45-3/8) | 1198 (47-3/16) | 1060 (41-3/4) | 11 | 1000 (39-3/8) | 1200 (47-1/4) | 1060 (41-3/4) | 9 | 900 (35-7/16) | 24 | 1239 (48-25/32) | 1190 (46-7/8) | | |

Note1. Use M10 screw for the suspension bolt (field supply).
2. Keep the service space for the maintenance at the bottom.
3. This chart indicates for SEZ-KD15NA4 model, which has 3 fans.
SEZ-KD09,12NA4 models have 2 fans.
SEZ-KD18NA4 model has 4 fans.
4. When an inlet duct is used, remove the air filter (supply with the unit), then install the filter (field supply) at suction side.

Due to continuing improvement, above specification may be subject to change without notice.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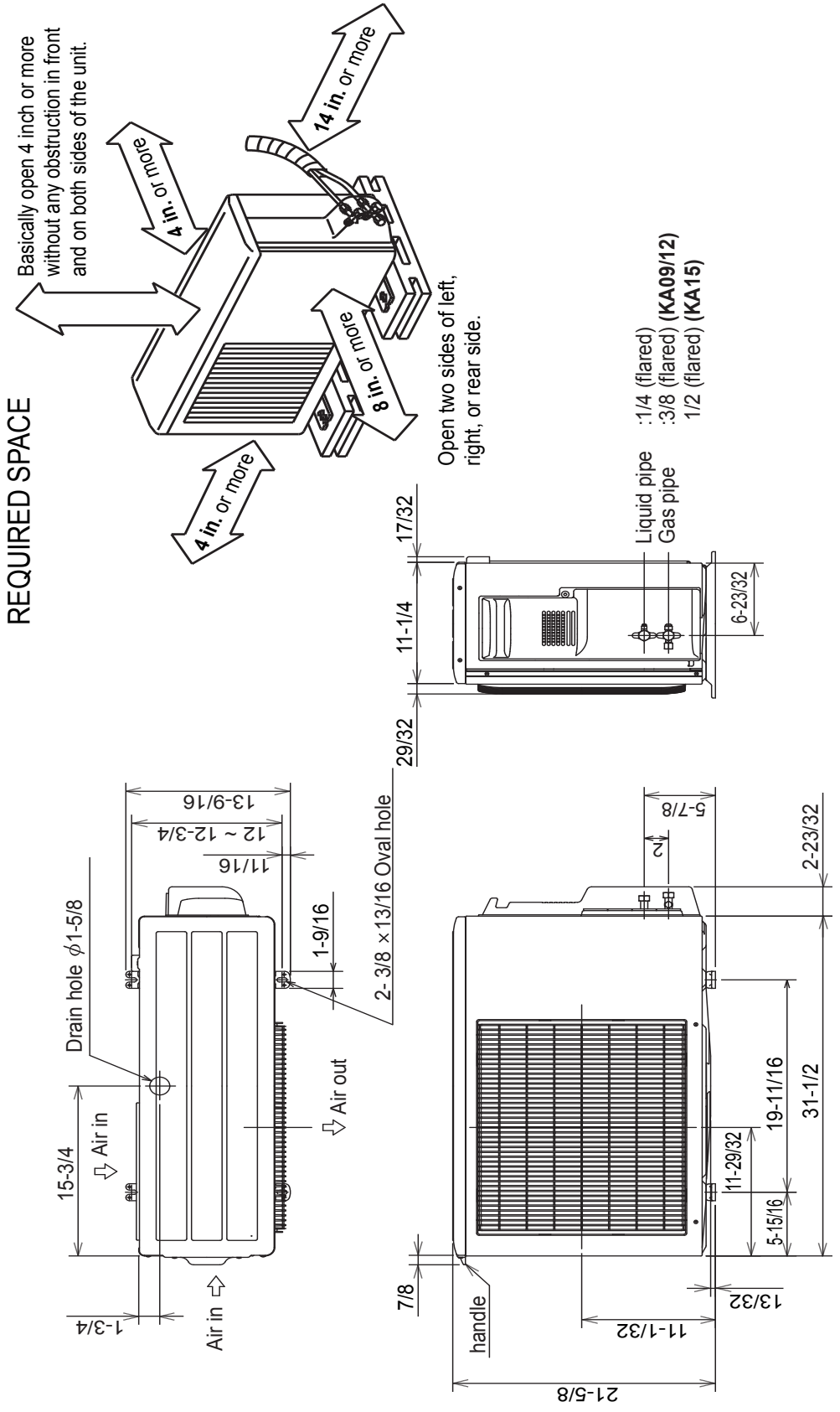
## 3-2. EXTERNAL DIMENSIONS

**SUZ-KA09NA.TH SUZ-KA12NA.TH SUZ-KA15NA.TH**

**Unit: mm (inch)**

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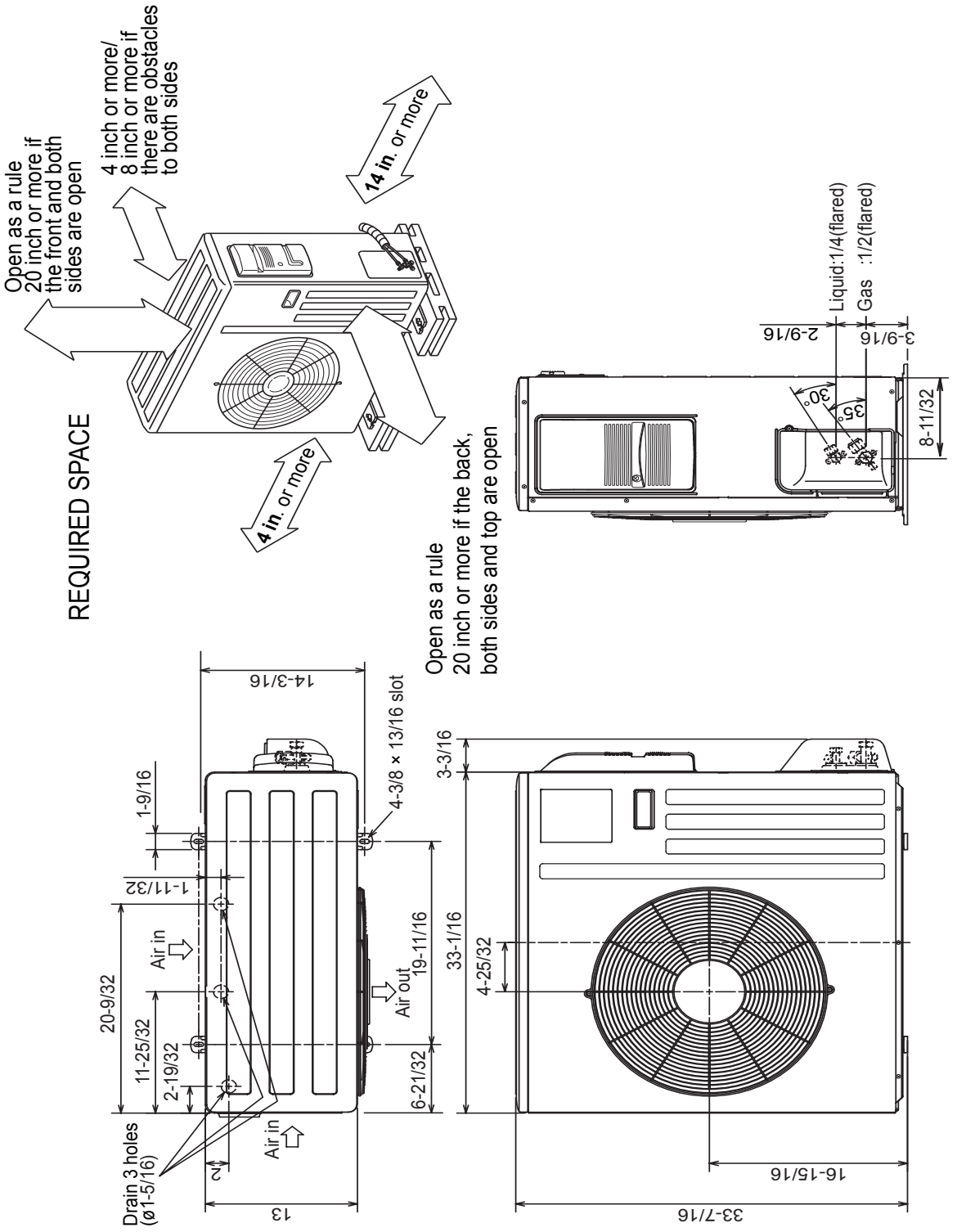
## 3-2. EXTERNAL DIMENSIONS

**SUZ-KA18NA.TH**

**Unit: Inch**

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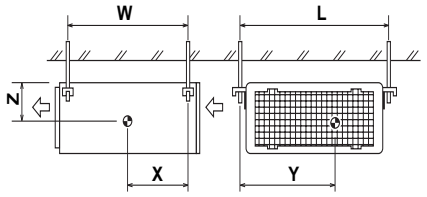
## 3-3. CENTER OF GRAVITY

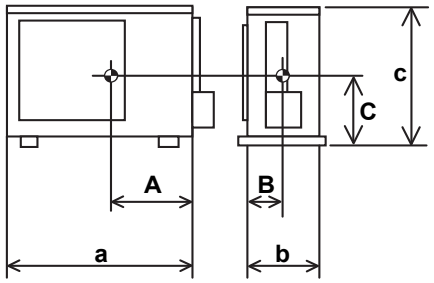
### SEZ-KD09NA4.TH SEZ-KD12NA4.TH SEZ-KD15NA4.TH SEZ-KD18NA4.TH




Unit: inch(mm)

| Model name | W | L | X | Y | Z |
|---|---|---|---|---|---|
| SEZ-KD09NA.TH | 24-5/8 (625) | 29-5/8 (752) | 10-3/8 (263) | 13-27/32 (351) | 4-3/16 (106) |
| SEZ-KD12NA.TH | 24-5/8 (625) | 37-1/2 (952) | 11-9/32 (286) | 17-21/32 (448) | 4-1/8 (104) |
| SEZ-KD15NA.TH | 24-5/8 (625) | 37-1/2 (952) | 11-1/32 (280) | 17-7/32 (437) | 4-1/8 (104) |
| SEZ-KD18NA.TH | 24-5/8 (625) | 45-3/8 (1152) | 11-1/4 (285) | 20-3/4 (527) | 4-1/8 (104) |

### SUZ-KA09NA.TH SUZ-KA12NA.TH SUZ-KA15NA.TH




Unit: inch(mm)

| Model name | A | B | C | a | b | c |
|---|---|---|---|---|---|---|
| SUZ-KA09NA.TH SUZ-KA12NA.TH SUZ-KA15NA.TH | 11-1/16 (280) | 5-9/16 (140) | 9-1/2 (240) | 31-1/2 (800) | 11-1/4 (285) | 21-5/8 (550) |
| SUZ-KA18NA.TH | 11-13/16 (300) | 5-7/8 (150) | 13-3/8 (340) | 33-1/16 (840) | 13 (330) | 33-7/16 (850) |

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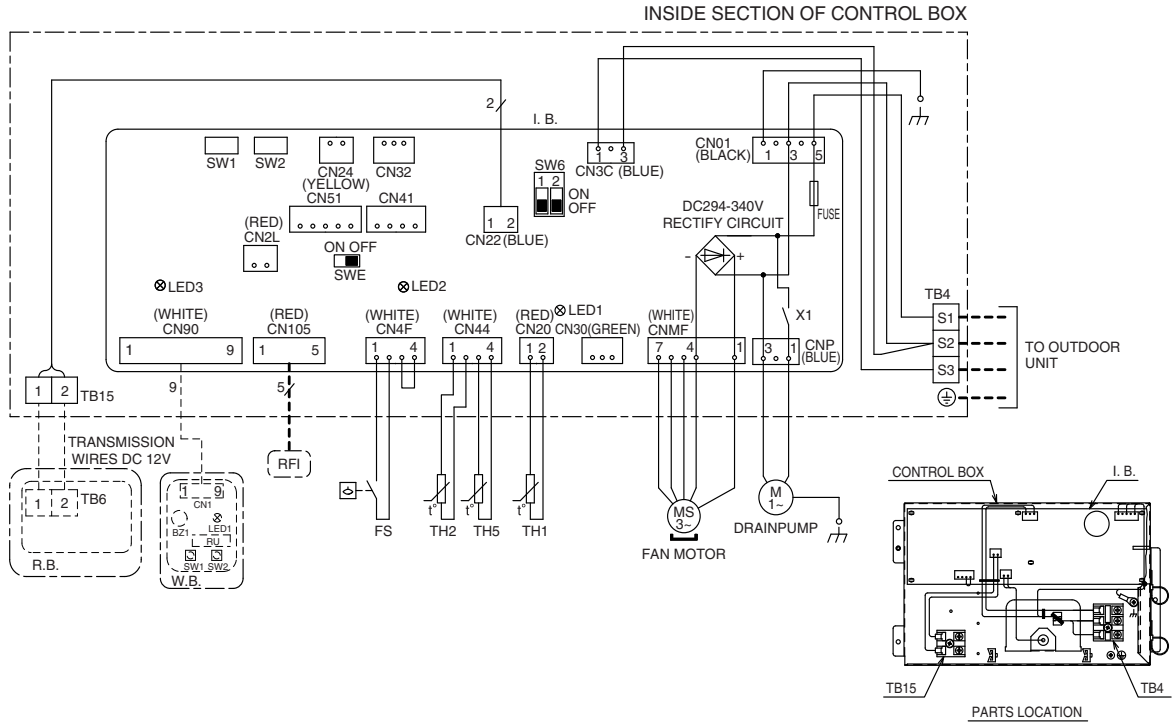
# 3-4. ELECTRICAL WIRING DIAGRAMS

## SEZ-KD09NA4.TH SEZ-KD12NA4.TH SEZ-KD15NA4.TH SEZ-KD18NA4.TH




SYMBOL EXPLANATION

| SYMBOL | NAME | SYMBOL | NAME | SYMBOL | NAME |
|---|---|---|---|---|---|
| I.B. | INDOOR CONTROLLER BOARD | I.B. | INDOOR CONTROLLER BOARD | OPTIONAL PARTS | |
| FUSE | FUSE AC250V 6.3A | SW1 | SWITCH (FOR MODE SELECTION) | W.B. | IR WIRELESS REMOTE CONTROLLER BOARD |
| X1 | AUX. RELAY | SW2 | SWITCH (FOR CAPACITY CODE) | RU | RECEIVING UNIT |
| CN2L | CONNECTOR (LOSSNAY) | SW6 | SWITCH (FOR MODEL SELECTION) | BZ1 | BUZZER |
| CN24 | CONNECTOR (BACK-UP HEATING) | SWE | CONNECTOR (EMERGENCY OPERATION) | LED1 | LED (RUN INDICATOR) |
| CN30 | CONNECTOR (LLC) | TH1 | INTAKE AIR TEMP. THERMISTOR | SW1 | SWITCH (HEATING ON/OFF) |
| CN32 | CONNECTOR (REMOTE SWITCH) | TH2 | PIPE TEMP. THERMISTOR/LIQUID | SW2 | SWITCH (COOLING ON/OFF) |
| CN41 | CONNECTOR (HA TERMINAL-A) | TH5 | COND./EVA. TEMP. THERMISTOR | R.B. | REMOTE CONTROLLER BOARD |
| CN51 | CONNECTOR (CENTRALLY CONTROL) | FS | FLOAT SWITCH | TB6 | TERMINAL BLOCK (REMOTE CONTROLLER TRANSMISSION LINE) |
| CN90 | CONNECTOR (WIRELESS) | TB4 | TERMINAL BLOCK (INDOOR/OUTDOOR CONNECTING LINE) | | |
| CN105 | CONNECTOR (RADIO FREQUENCY INTERFACE) | | | | |
| LED1 | POWER SUPPLY (I.B.) | TB15 | TERMINAL BLOCK (REMOTE CONTROLLER TRANSMISSION LINE) | | |
| LED2 | POWER SUPPLY (I.B.) | | | | |
| LED3 | TRANSMISSION (INDOOR-OUTDOOR) | RFI | RADIO FREQUENCY INTERFACE FOR RF THERMOSTAT | | |

Note1. Since the outdoor side electric wiring may change be sure to check the outdoor unit electric wiring for servicing.
2. Indoor and outdoor connecting wires are made with polarities,make wiring matchingterminal numbers (S1,S2,S3).
3. Symbols used in wiring diagram above are as follows.
:CONNECTOR
:TERMINAL
(HEAVY DOTTED LINE):FIELD WIRING
(THIN DOTTED LINE):OPTIONAL PARTS
4. Use copper supply wire.

Due to continuing improvement, above specification may be subject to change without notice.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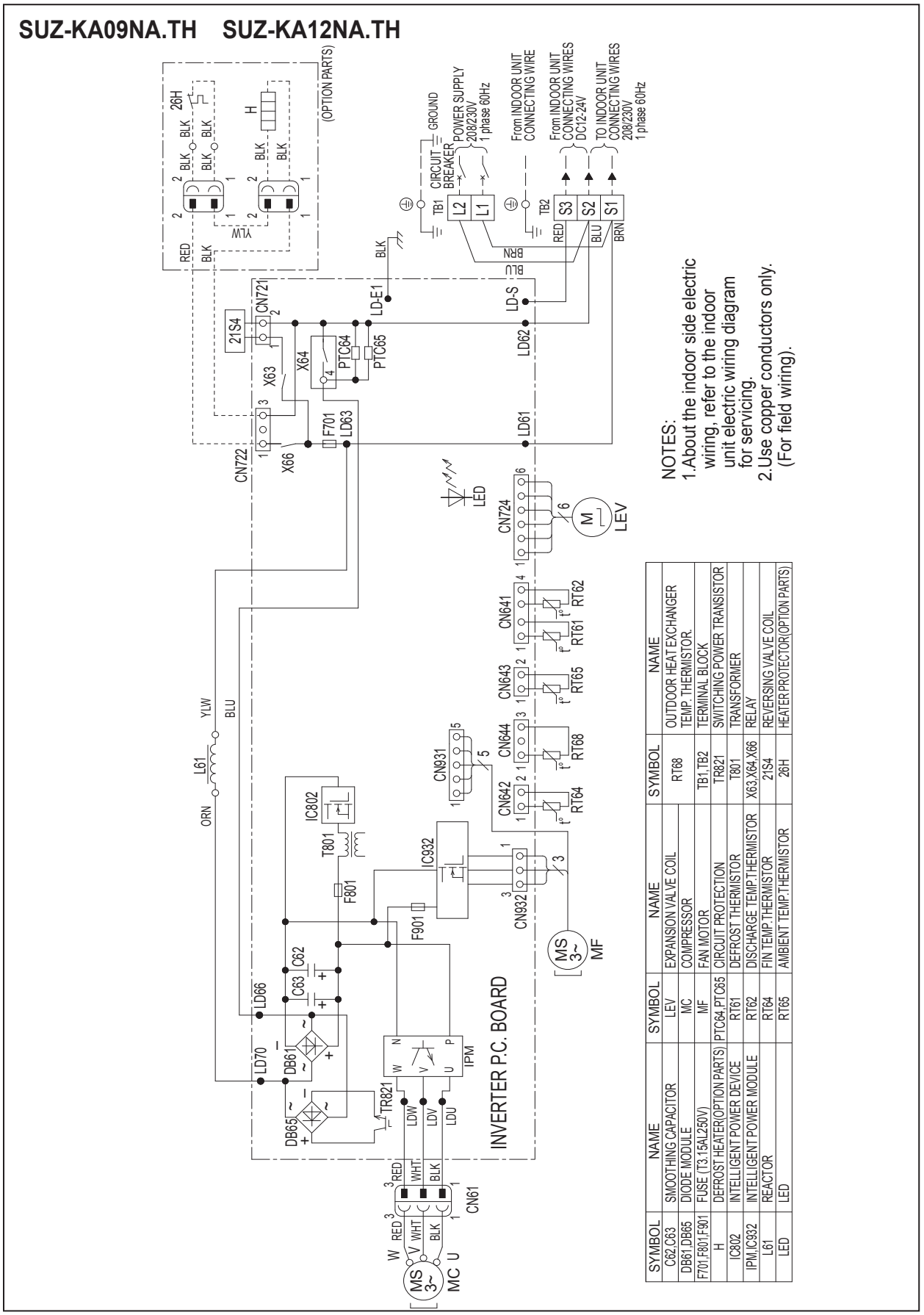
## SUZ-KA09NA.TH SUZ-KA12NA.TH




| SYMBOL | NAME |
|---|---|
| C62,C63 | SMOOTHING CAPACITOR |
| DB61,DB65 | DIODE MODULE |
| F701,F801,F901 | FUSE (T3.15AL250V) |
| H | DEFROST HEATER(OPTION PARTS) |
| IC802 | INTELLIGENT POWER DEVICE |
| IPM,IC932 | INTELLIGENT POWER MODULE |
| L61 | REACTOR |
| LED | LED |

| SYMBOL | NAME |
|---|---|
| LEV | EXPANSION VALVE COIL |
| MC | COMPRESSOR |
| MF | FAN MOTOR |
| PTC64,PTC65 | CIRCUIT PROTECTION |
| RT61 | DEFROST THERMISTOR |
| RT62 | DISCHARGE TEMP.THERMISTOR |
| RT64 | FIN TEMP.THERMISTOR |
| RT65 | AMBIENT TEMP.THERMISTOR |

| SYMBOL | NAME |
|---|---|
| RT68 | OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR. |
| TB1,TB2 | TERMINAL BLOCK |
| TR821 | SWITCHING POWER TRANSISTOR |
| T801 | TRANSFORMER |
| X63,X64,X66 | RELAY |
| 21S4 | REVERSING VALVE COIL |
| 26H | HEATER PROTECTOR(OPTION PARTS) |

Due to continuing improvement, above specification may be subject to change without notice.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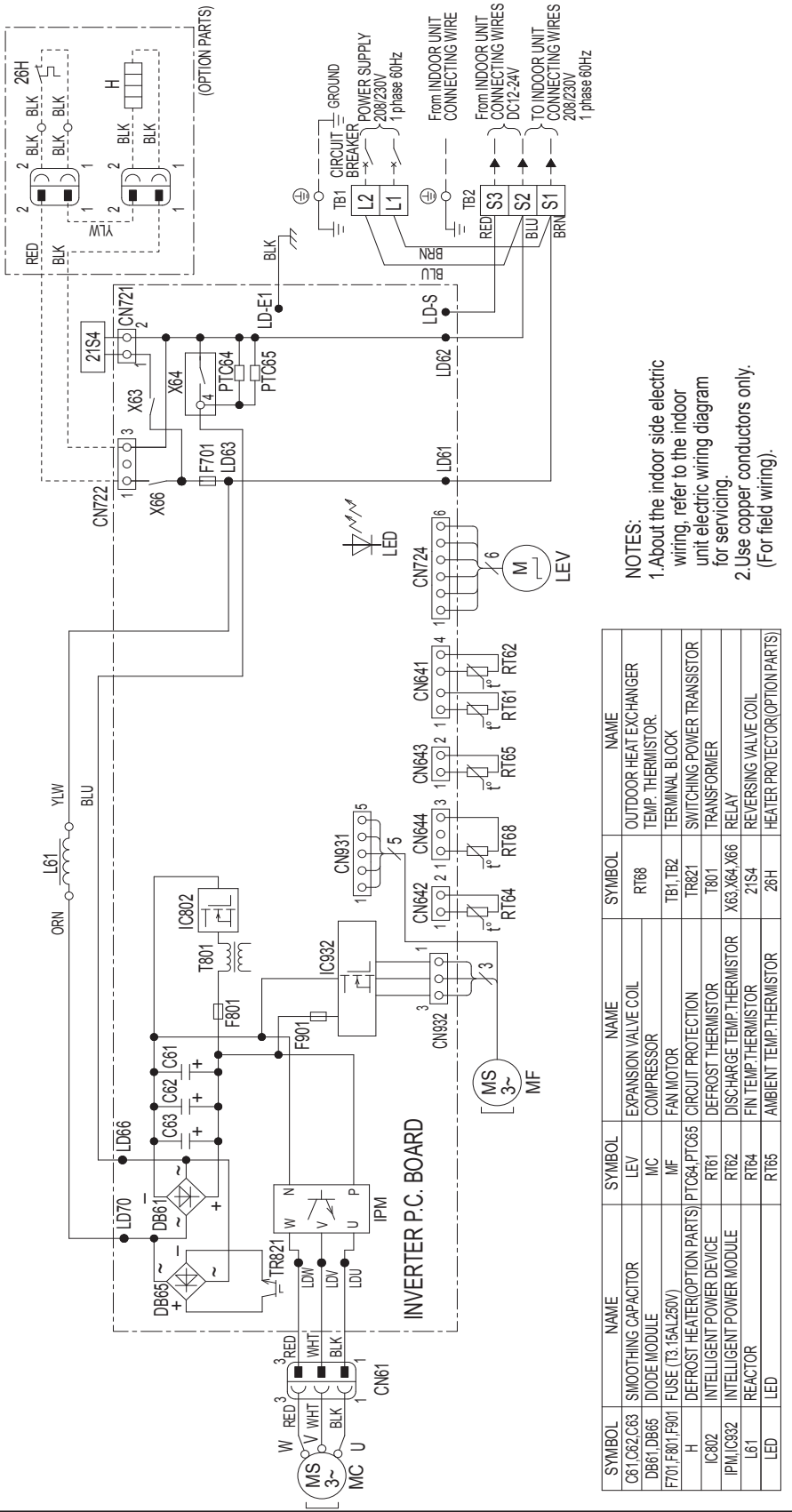
## SUZ-KA15NA.TH




NOTES:
1.About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2.Use copper conductors only. (For field wiring).

| SYMBOL | NAME | SYMBOL | NAME | SYMBOL | NAME |
|---|---|---|---|---|---|
| C61,C62,C63 | SMOOTHING CAPACITOR | LEV | EXPANSION VALVE COIL | RT68 | OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR. |
| DB61,DB65 | DIODE MODULE | MC | COMPRESSOR | | |
| F701,F801,F901 | FUSE (T3.15AL250V) | MF | FAN MOTOR | TB1,TB2 | TERMINAL BLOCK |
| H | DEFROST HEATER(OPTION PARTS) | PTC64,PTC65 | CIRCUIT PROTECTION | TR821 | SWITCHING POWER TRANSISTOR |
| IC802 | INTELLIGENT POWER DEVICE | RT61 | DEFROST THERMISTOR | T801 | TRANSFORMER |
| IPM,IC932 | INTELLIGENT POWER MODULE | RT62 | DISCHARGE TEMP.THERMISTOR | X63,X64,X66 | RELAY |
| L61 | REACTOR | RT64 | FIN TEMP.THERMISTOR | 21S4 | REVERSING VALVE COIL |
| LED | LED | RT65 | AMBIENT TEMP.THERMISTOR | 26H | HEATER PROTECTOR(OPTION PARTS) |

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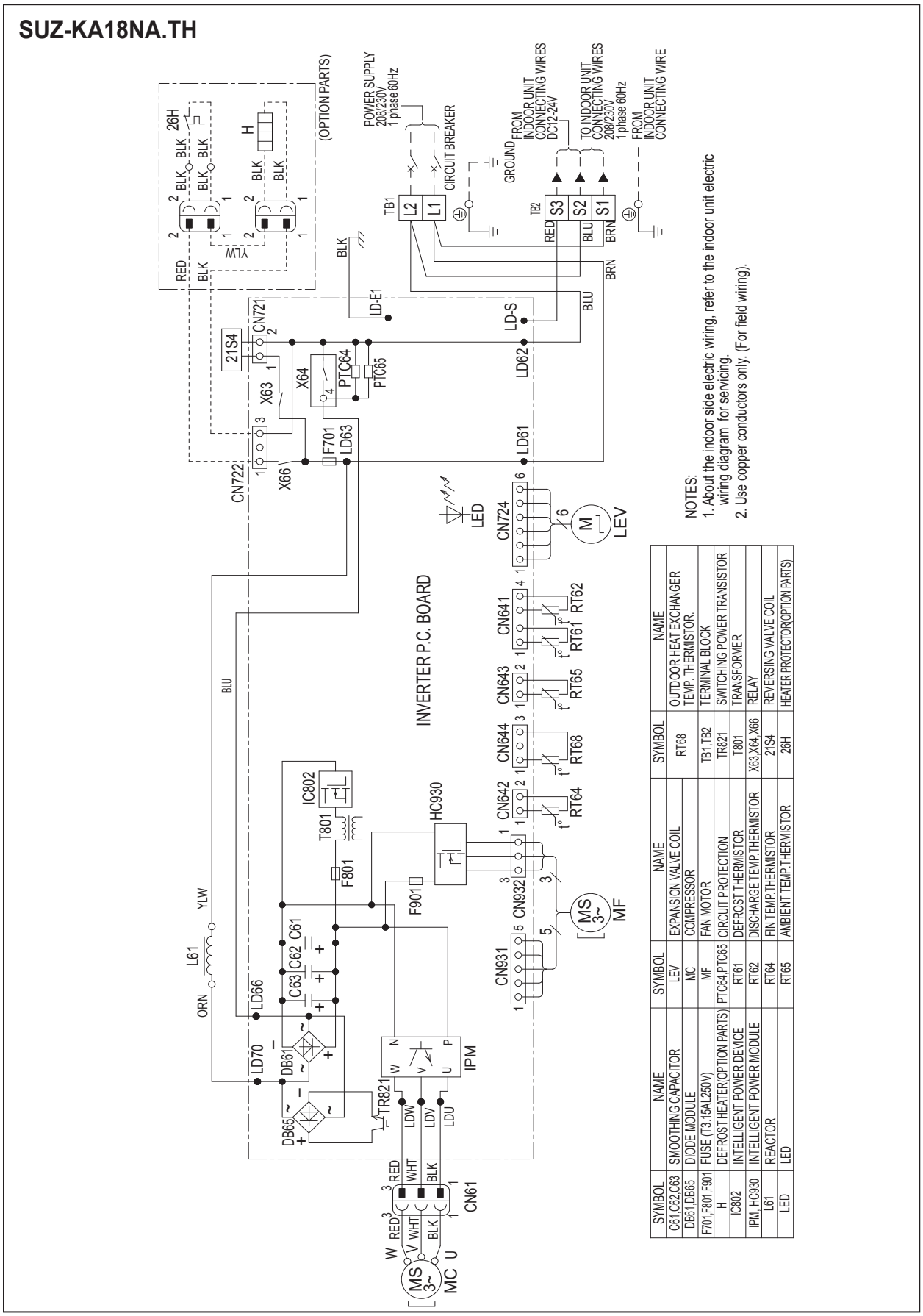
## SUZ-KA18NA.TH


(OPTION PARTS)
POWER SUPPLY 208/230V 1 phase 60Hz
CIRCUIT BREAKER
GROUND
FROM INDOOR UNIT CONNECTING WIRES DC12-24V
TO INDOOR UNIT CONNECTING WIRES 208/230V 1 phase 60Hz
FROM INDOOR UNIT CONNECTING WIRE
INVERTER P.C. BOARD
LED
LEV
MF
MC
IPM
NOTES:
1. About the indoor side electric wiring, refer to the indoor unit electric wiring diagram for servicing.
2. Use copper conductors only. (For field wiring).

| SYMBOL | NAME | SYMBOL | NAME | SYMBOL | NAME |
|---|---|---|---|---|---|
| C61,C62,C63 | SMOOTHING CAPACITOR | LEV | EXPANSION VALVE COIL | RT68 | OUTDOOR HEAT EXCHANGER TEMP. THERMISTOR. |
| DB61,DB65 | DIODE MODULE | MC | COMPRESSOR | | |
| F701,F801,F901 | FUSE (T3.15AL250V) | MF | FAN MOTOR | TB1,TB2 | TERMINAL BLOCK |
| H | DEFROST HEATER(OPTION PARTS) | PTC64,PTC65 | CIRCUIT PROTECTION | TR821 | SWITCHING POWER TRANSISTOR |
| IC802 | INTELLIGENT POWER DEVICE | RT61 | DEFROST THERMISTOR | T801 | TRANSFORMER |
| IPM, HC930 | INTELLIGENT POWER MODULE | RT62 | DISCHARGE TEMP.THERMISTOR | X63,X64, X66 | RELAY |
| L61 | REACTOR | RT64 | FIN TEMP.THERMISTOR | 21S4 | REVERSING VALVE COIL |
| LED | LED | RT65 | AMBIENT TEMP.THERMISTOR | 26H | HEATER PROTECTOR(OPTION PARTS) |

Due to continuing improvement, above specification may be subject to change without notice.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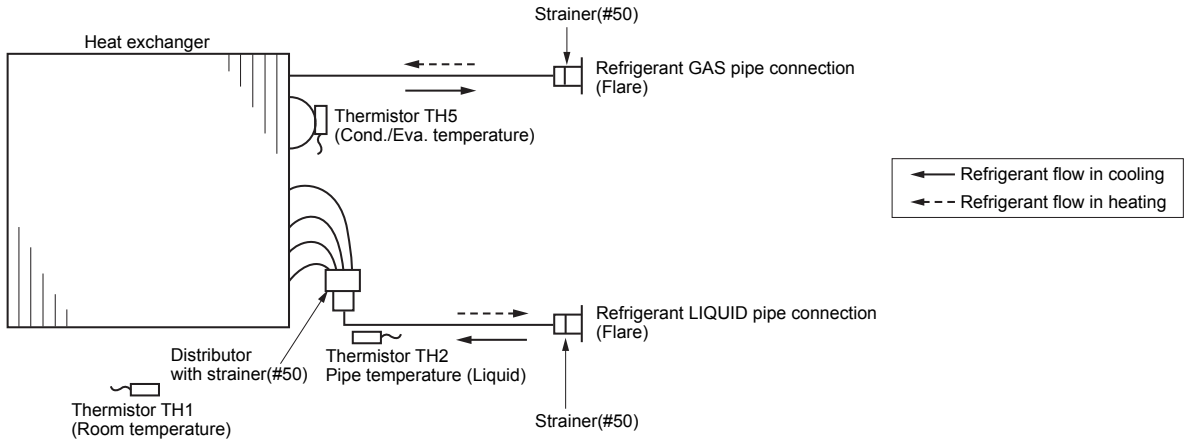
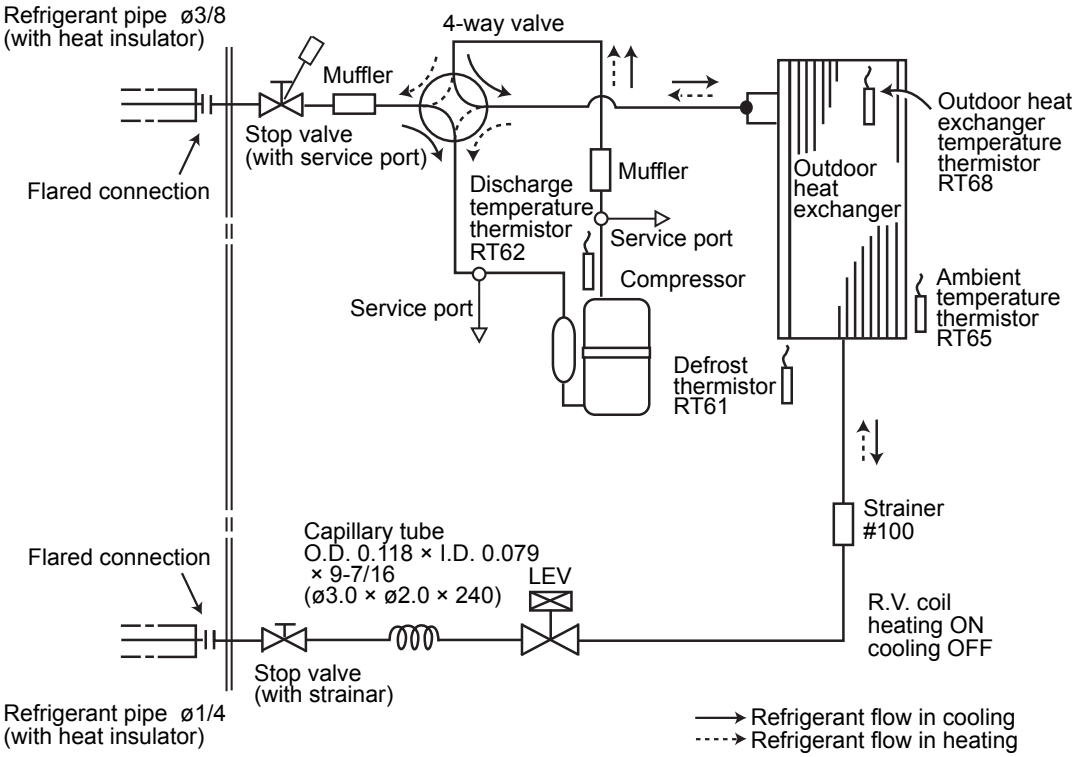
## 3-5. REFRIGERANT SYSTEM DIAGRAMS

### SEZ-KD09NA4.TH SEZ-KD12NA4.TH SEZ-KD15NA4.TH SEZ.KD18NA4.TH




### SUZ-KA09NA.TH

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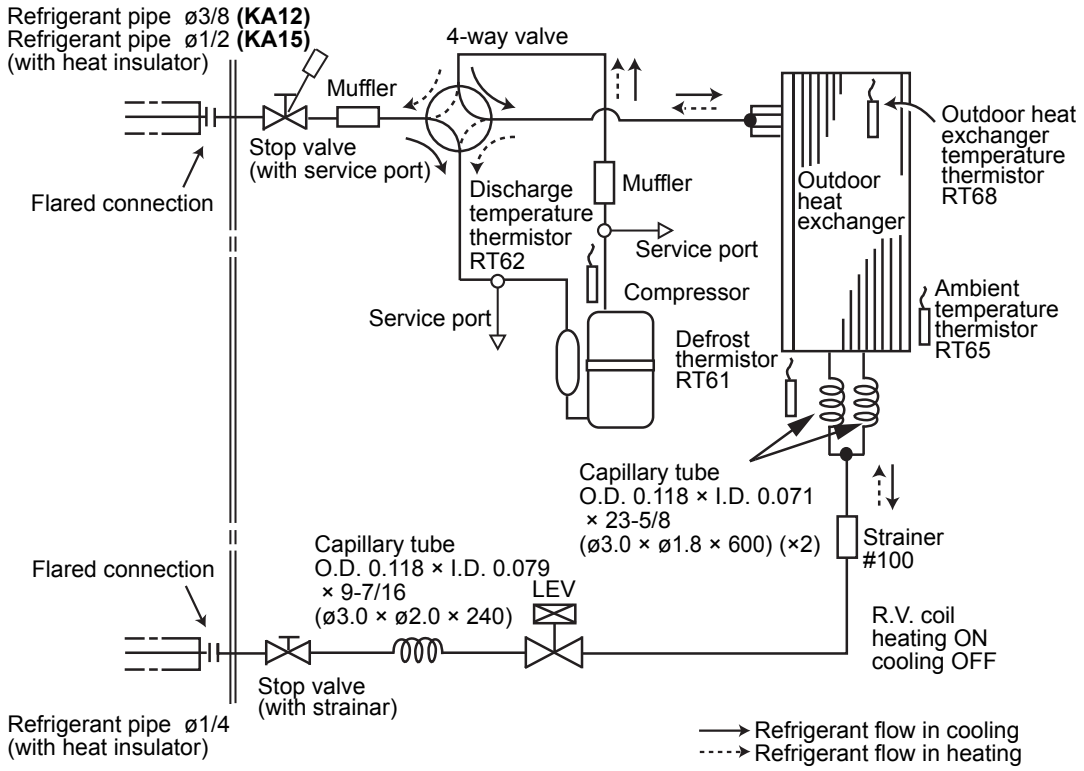
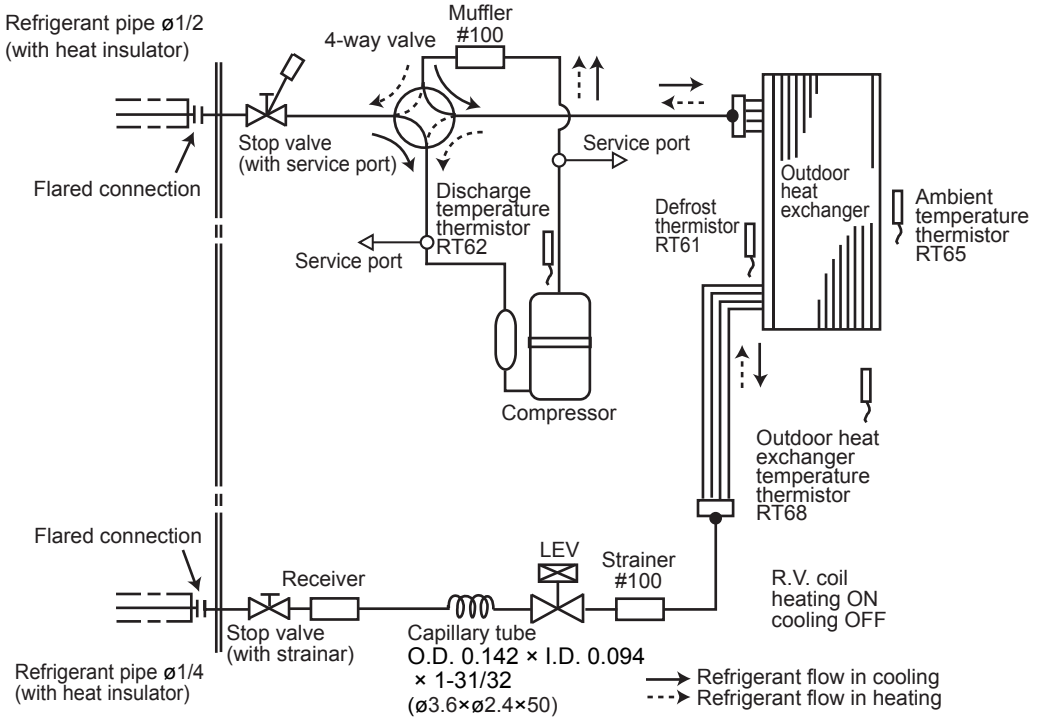
## SUZ-KA12NA.TH SUZ-KA15NA.TH




## SUZ-KA18NA.TH




Due to continuing improvement, above specification may be subject to change without notice.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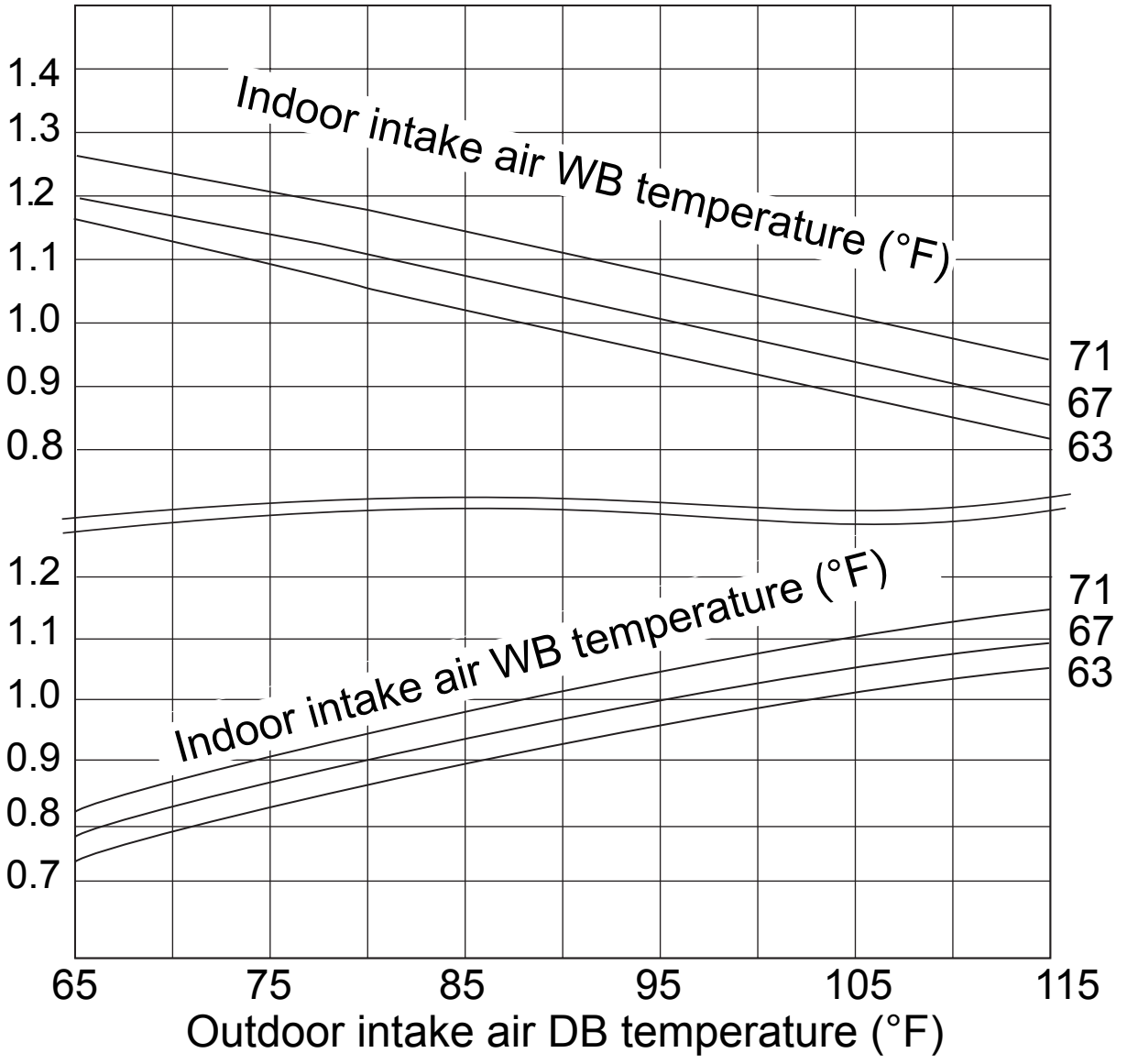
## 3-6. CAPACITY CORRECTION CURVE BY TEMPERATURE

### (1) Cooling Performance Curve

**For The Combination Of Outdoor Unit SUZ-KA·NA**

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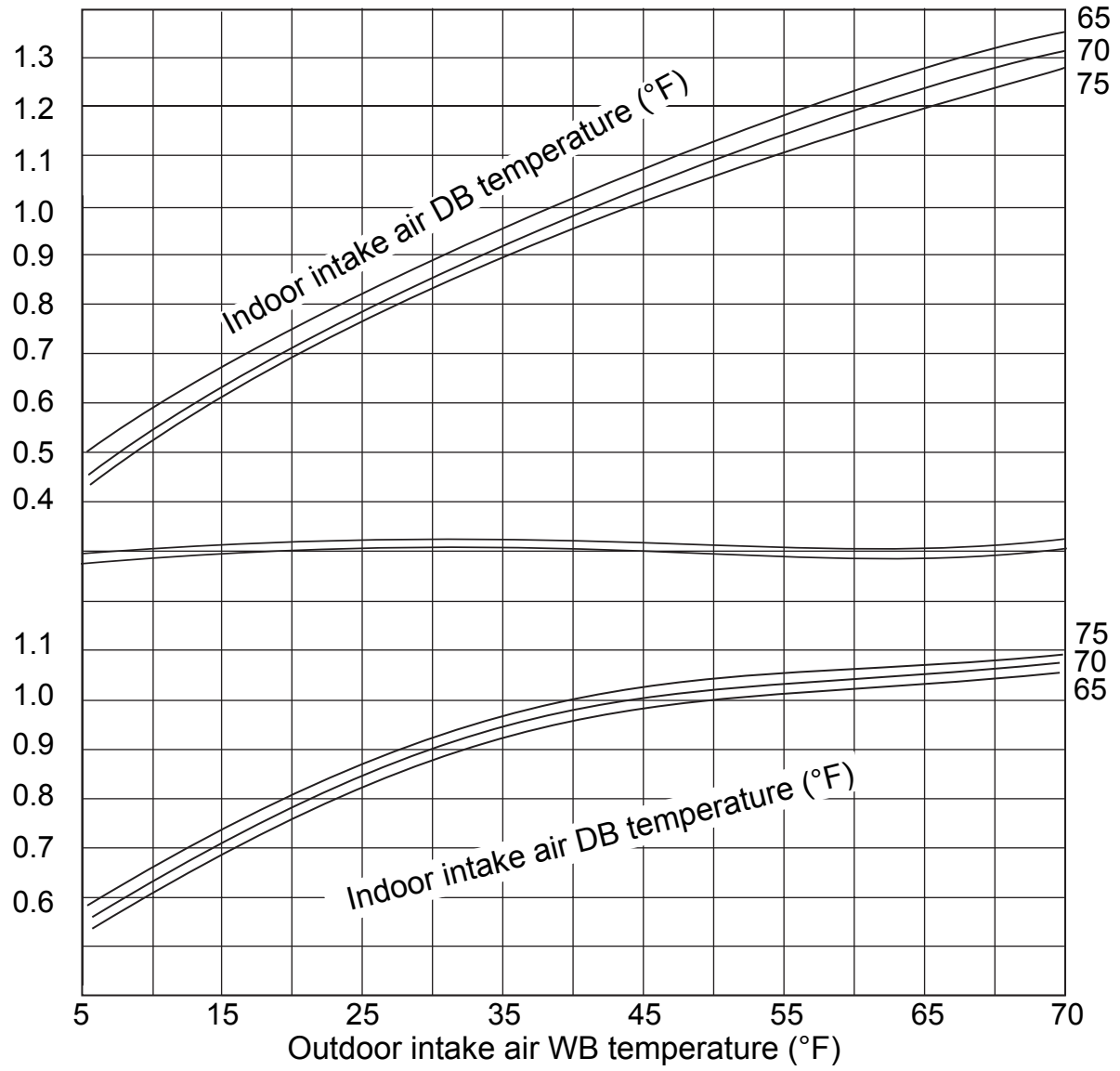
## (2) Heating Performance Curve

**SEZ-KD09NA4.TH SEZ-KD12NA4.TH SEZ-KD15NA4.TH**




**Note :** This value of frequency is not the same as the actual frequency in operating.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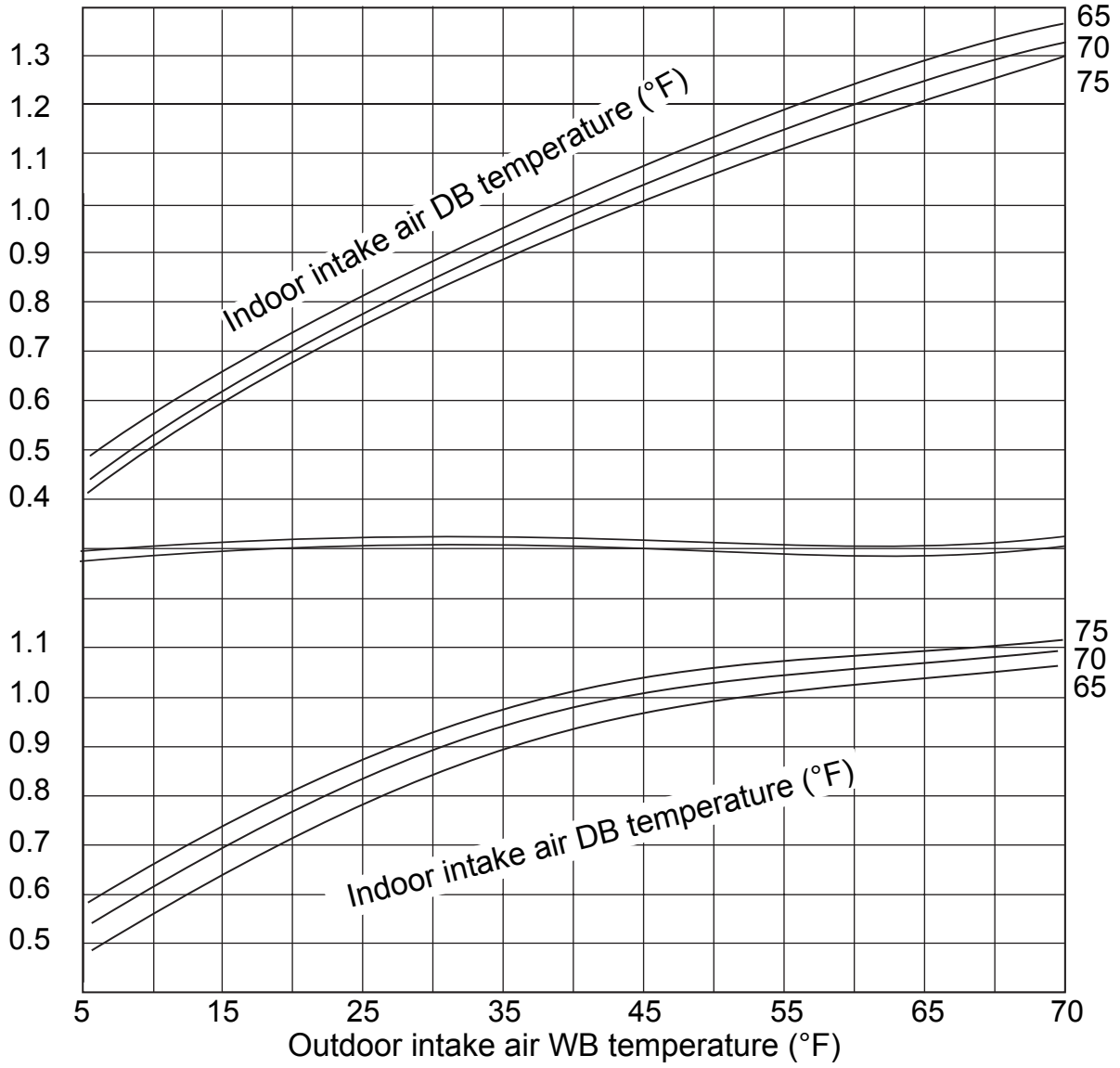
## 3-6. CAPACITY CORRECTION CURVE BY TEMPERATURE

**SEZ.KD18NA4.TH**




**Note :** This value of frequency is not the same as the actual frequency in operating.

Due to continuing improvement, above specification may be subject to change without notice.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## 3-7. CAPACITY CORRECTION TABLE BY TEMPERATURE

### SUZ-KA09NA.TH SUZ-KA12NA.TH SUZ-KA15NA.TH SUZ-KA15NA.TH SUZ-KA18NA.TH

### (1) Cooling Capacity

| Model | Indoor air | Outdoor intake air DB temperature (˚F) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IWB (˚F) | 75 | | | 85 | | | 95 | | | 105 | | | 115 | | |
| | | TC | SHC | TPC | TC | SHC | TPC | TC | SHC | TPC | TC | SHC | TPC | TC | SHC | TPC |
| **SUZ-KA09NA** | 71 | 9.9 | 6.6 | 0.60 | 9.3 | 6.2 | 0.65 | 8.7 | 5.8 | 0.70 | 8.1 | 5.4 | 0.74 | 7.5 | 5.0 | 0.77 |
| | 67 | 9.4 | 7.5 | 0.56 | 8.7 | 7.0 | 0.62 | 8.1 | 6.5 | 0.67 | 7.5 | 6.0 | 0.71 | 6.9 | 5.5 | 0.74 |
| | 63 | 8.8 | 8.2 | 0.54 | 8.2 | 7.6 | 0.59 | 7.6 | 7.1 | 0.64 | 6.9 | 6.5 | 0.68 | 6.3 | 5.9 | 0.71 |
| **SUZ-KA12NA** | 71 | 14.1 | 8.8 | 0.82 | 13.2 | 8.3 | 0.90 | 12.4 | 7.7 | 0.97 | 11.5 | 7.2 | 1.02 | 10.6 | 6.6 | 1.06 |
| | 67 | 13.3 | 10.1 | 0.77 | 12.4 | 9.4 | 0.85 | 11.5 | 8.7 | 0.92 | 10.7 | 8.1 | 0.98 | 9.8 | 7.5 | 1.02 |
| | 63 | 12.5 | 11.2 | 0.74 | 11.6 | 10.4 | 0.81 | 10.8 | 9.7 | 0.88 | 9.8 | 8.8 | 0.94 | 9.0 | 8.0 | 0.98 |
| **SUZ-KA15NA** | 71 | 17.3 | 11.5 | 1.04 | 16.1 | 10.8 | 1.14 | 15.2 | 10.1 | 1.23 | 14.1 | 9.4 | 1.29 | 13.0 | 8.6 | 1.35 |
| | 67 | 16.4 | 13.1 | 0.98 | 15.2 | 12.2 | 1.08 | 14.1 | 11.3 | 1.17 | 13.1 | 10.5 | 1.24 | 12.1 | 9.6 | 1.30 |
| | 63 | 15.4 | 14.3 | 0.94 | 14.2 | 13.3 | 1.04 | 13.3 | 12.4 | 1.12 | 12.1 | 11.3 | 1.19 | 11.0 | 10.3 | 1.24 |
| **SUZ-KA18NA** | 71 | 21.1 | 13.8 | 1.23 | 19.7 | 12.9 | 1.35 | 18.5 | 12.1 | 1.45 | 17.2 | 11.3 | 1.52 | 15.8 | 10.4 | 1.59 |
| | 67 | 20.0 | 15.8 | 1.16 | 18.6 | 14.7 | 1.28 | 17.2 | 13.6 | 1.38 | 16.0 | 12.6 | 1.46 | 14.7 | 11.6 | 1.53 |
| | 63 | 18.7 | 17.3 | 1.10 | 17.4 | 16.0 | 1.22 | 16.2 | 14.9 | 1.32 | 14.7 | 13.6 | 1.41 | 13.4 | 12.4 | 1.46 |

**NOTE**: 1. IWB: Intake air wet-bulb temperature
TC: Total Capacity ($\times 10^3$ Btu/h)
SHC: Sensible Heat Capacity ($\times 10^3$ Btu/h)
TPC: Total Power Consumption (kW)
2. SHC is based on 80˚F of indoor Intake air DB temperature.


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## 3-7. CAPACITY CORRECTION TABLE BY TEMPERATURE

### SUZ-KA09NA.TH SUZ-KA12NA.TH SUZ-KA15NA.TH SUZ-KA15NA.TH SUZ-KA18NA.TH

### (2) Heating Capacity

| Model | In-door air | Outdoor intake air WB temperature (˚F) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | IDB (˚F) | 5 | | 15 | | 25 | | 35 | | 43 | | 45 | | 55 | |
| | | TC | TPC | TC | TPC | TC | TPC | TC | TPC | TC | TPC | TC | TPC | TC | TPC |
| **SUZ-KA09NA.TH** | 75 | 4.8 | 0.60 | 6.3 | 0.76 | 7.9 | 0.89 | 9.4 | 0.99 | 10.6 | 1.05 | 11.0 | 1.06 | 12.4 | 1.10 |
| | 70 | 5.2 | 0.58 | 6.7 | 0.73 | 8.2 | 0.87 | 9.6 | 0.97 | 10.9 | 1.02 | 11.2 | 1.04 | 12.7 | 1.08 |
| | 65 | 5.5 | 0.55 | 6.9 | 0.70 | 8.6 | 0.84 | 10.0 | 0.94 | 11.2 | 0.99 | 11.6 | 1.01 | 13.0 | 1.06 |
| **SUZ-KA12NA.TH** | 75 | 6.0 | 0.67 | 7.9 | 0.85 | 9.9 | 1.00 | 11.8 | 1.11 | 13.3 | 1.17 | 13.7 | 1.19 | 15.5 | 1.23 |
| | 70 | 6.5 | 0.64 | 8.4 | 0.82 | 10.2 | 0.97 | 12.0 | 1.08 | 13.6 | 1.14 | 14.0 | 1.16 | 15.8 | 1.21 |
| | 65 | 6.8 | 0.62 | 8.6 | 0.79 | 10.7 | 0.94 | 12.4 | 1.05 | 14.0 | 1.11 | 14.4 | 1.13 | 16.2 | 1.19 |
| **SUZ-KA15NA.TH** | 75 | 7.9 | 0.89 | 10.4 | 1.12 | 13.1 | 1.31 | 15.6 | 1.46 | 17.6 | 1.54 | 18.1 | 1.56 | 20.5 | 1.62 |
| | 70 | 8.6 | 0.85 | 11.1 | 1.08 | 13.5 | 1.28 | 15.9 | 1.43 | 18.0 | 1.50 | 18.5 | 1.53 | 21.0 | 1.59 |
| | 65 | 9.0 | 0.81 | 11.3 | 1.04 | 14.1 | 1.24 | 16.5 | 1.39 | 18.5 | 1.46 | 19.1 | 1.49 | 21.4 | 1.56 |
| **SUZ-KA18NA.TH** | 75 | 9.5 | 1.00 | 12.5 | 1.27 | 15.7 | 1.49 | 18.7 | 1.66 | 21.1 | 1.74 | 21.7 | 1.77 | 24.6 | 1.84 |
| | 70 | 10.3 | 0.96 | 13.3 | 1.22 | 16.2 | 1.45 | 19.1 | 1.62 | 21.6 | 1.70 | 22.2 | 1.73 | 25.2 | 1.80 |
| | 65 | 10.8 | 0.92 | 13.6 | 1.17 | 17.0 | 1.40 | 19.8 | 1.57 | 22.2 | 1.66 | 22.9 | 1.68 | 25.7 | 1.77 |

**NOTE**: 1. IDB: Intake air dry-bulb temperature
TC: Total Capacity ($\times 10^3$ Btu/h)
TPC: Total Power Consumption (kW)
2. Above data is for heating operation without any frost.

How to operate with fixed operational frequency of the compressor.
1. Press the EMERGENCY OPERATION switch on the front of the indoor unit, and select either EMERGENCY COOL mode or EMERGENCY HEAT mode before starting to operate the air conditioner.
2. The compressor starts with operational frequency.
3. The fan speed of the indoor unit is High.
4. This operation continues for 30 minutes.
5. In order to release this operation, press the EMERGENCY OPERATION switch twice or once, or press any button on the remote controller.


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## (3) M-Series Cooling Correction

| | 70 | 77 | 81 | 86 | 95 | 104 | 115 |
|---|---|---|---|---|---|---|---|
| 60 | 1.11 | 1.06 | 1.01 | 0.97 | 0.91 | 0.83 | 0.76 |
| 63 | 1.16 | 1.10 | 1.06 | 1.02 | 0.96 | 0.88 | 0.81 |
| 64 | 1.18 | 1.13 | 1.08 | 1.04 | 0.98 | 0.90 | 0.83 |
| 68 | 1.23 | 1.18 | 1.14 | 1.10 | 1.03 | 0.96 | 0.89 |
| 72 | 1.28 | 1.23 | 1.20 | 1.15 | 1.09 | 1.02 | 0.95 |
| 75 | 1.34 | 1.29 | 1.26 | 1.22 | 1.15 | 1.08 | 1.02 |
| 79 | 1.38 | 1.34 | 1.32 | 1.28 | 1.21 | 1.14 | 1.07 |

## (4) M-Series Defrost Correction

| **Outdoor intake temperature W.B. [° F]** | 43 | 39 | 36 | 32 | 28 | 25 | 21 | 18 | 14 |
|---|---|---|---|---|---|---|---|---|---|
| **Outdoor intake temperature W.B. [° C]** | 6 | 4 | 2 | 0 | -2 | -4 | -6 | -8 | -10 |
| **Correction factor** | 1.00 | 0.80 | 0.82 | 0.84 | 0.87 | 0.90 | 0.93 | 0.96 | 1.00 |


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## (5) M-Series Heating Correction

| | | Outdoor W.B. [° F] | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | -13 | -4 | 5 | 14 | 23 | 32 | 41 | 50 |
| | Indoor | | | | | | | | |
| | EAT DB | | | | | | | | |
| SUZ-KA09NA.TH | 60 | | | 0.56 | 0.66 | 0.80 | 0.95 | 1.07 | 1.07 |
| SUZ-KA12NA.TH | 60 | | | 0.56 | 0.66 | 0.80 | 0.95 | 1.07 | 1.07 |
| SUZ-KA15NA.TH | 60 | | | 0.56 | 0.66 | 0.80 | 0.95 | 1.07 | 1.07 |
| SUZ-KA18NA.TH | 60 | | | 0.56 | 0.66 | 0.80 | 0.95 | 1.07 | 1.07 |
| | | | | | | | | | |
| **Interpolated Data Between 60 and 65 Indoor EAT DB data sets** | | | | | | | | | |
| SUZ-KA09NA.TH | 63 | | | 0.55 | 0.65 | 0.79 | 0.93 | 1.05 | 1.05 |
| SUZ-KA12NA.TH | 63 | | | 0.55 | 0.65 | 0.79 | 0.93 | 1.05 | 1.05 |
| SUZ-KA15NA.TH | 63 | | | 0.55 | 0.65 | 0.79 | 0.93 | 1.05 | 1.05 |
| SUZ-KA18NA.TH | 63 | | | 0.55 | 0.65 | 0.79 | 0.93 | 1.05 | 1.05 |
| | | | | | | | | | |
| SUZ-KA09NA.TH | 65 | | | 0.54 | 0.64 | 0.78 | 0.92 | 1.03 | 1.03 |
| SUZ-KA12NA.TH | 65 | | | 0.54 | 0.64 | 0.78 | 0.92 | 1.03 | 1.03 |
| SUZ-KA15NA.TH | 65 | | | 0.54 | 0.64 | 0.78 | 0.92 | 1.03 | 1.03 |
| SUZ-KA18NA.TH | 65 | | | 0.54 | 0.64 | 0.78 | 0.92 | 1.03 | 1.03 |
| | | | | | | | | | |
| SUZ-KA09NA.TH | 70 | | | 0.52 | 0.62 | 0.75 | 0.885 | 1.00 | 1.00 |
| SUZ-KA12NA.TH | 70 | | | 0.52 | 0.62 | 0.75 | 0.885 | 1.00 | 1.00 |
| SUZ-KA15NA.TH | 70 | | | 0.52 | 0.62 | 0.75 | 0.885 | 1.00 | 1.00 |
| SUZ-KA18NA.TH | 70 | | | 0.52 | 0.62 | 0.75 | 0.885 | 1.00 | 1.00 |
| | | | | | | | | | |
| SUZ-KA09NA.TH | 75 | | | 0.50 | 0.60 | 0.72 | 0.85 | 0.96 | 0.96 |
| SUZ-KA12NA.TH | 75 | | | 0.50 | 0.60 | 0.72 | 0.85 | 0.96 | 0.96 |
| SUZ-KA15NA.TH | 75 | | | 0.50 | 0.60 | 0.72 | 0.85 | 0.96 | 0.96 |
| SUZ-KA18NA.TH | 75 | | | 0.50 | 0.60 | 0.72 | 0.85 | 0.96 | 0.96 |
| | | | | | | | | | |
| SUZ-KA09NA.TH | 80 | | | 0.48 | 0.58 | 0.70 | 0.82 | 0.93 | 0.93 |
| SUZ-KA12NA.TH | 80 | | | 0.48 | 0.58 | 0.70 | 0.82 | 0.93 | 0.93 |
| SUZ-KA15NA.TH | 80 | | | 0.48 | 0.58 | 0.70 | 0.82 | 0.93 | 0.93 |
| SUZ-KA18NA.TH | 80 | | | 0.48 | 0.58 | 0.70 | 0.82 | 0.93 | 0.93 |


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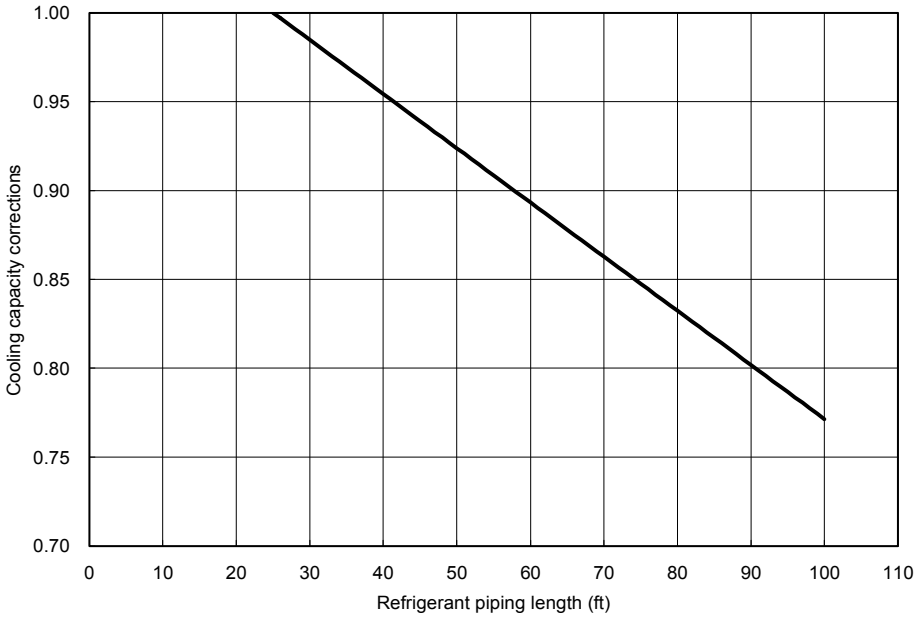
## 3-8. CAPACITY CORRECTION CURVE BY REFRIGERANT PIPING LENGTH

**SUZ-KA09NA.TH SUZ-KA12NA.TH SUZ-KA15NA.TH**
**SUZ-KA15NA.TH SUZ-KA18NA.TH**




Due to continuing improvement, above specification may be subject to change without notice.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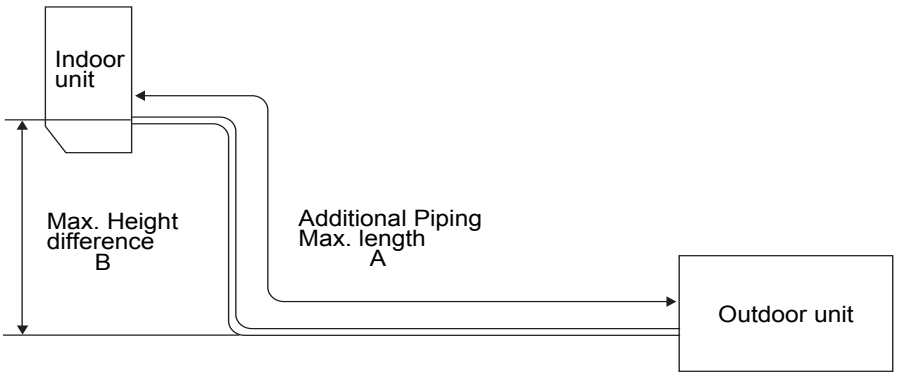
## 3-9. CAPACITY CORRECTION TABLE BY REFRIGERANT PIPING LENGTH

### (1) Cooling capacity correction

| Refrigerant piping length (one way: ft.) | | | | |
|---|---|---|---|---|
| | 25 (std.) | 40 | 65 | 100 |
| **SUZ-KA09NA.TH<br>SUZ-KA12NA.TH<br>SUZ-KA15NA.TH** | 1.0 | 0.954 | 0.878 | - |
| **SUZ-KA18NA.TH** | 1.0 | 0.954 | 0.878 | 0.713 |

### (2) Maximum refrigerant piping length & maximum height difference

| **Model** | Refrigerant piping: ft | | Piping size: in. | | | |
|---|---|---|---|---|---|---|
| | Additional piping Max. length A | Additional piping Max. height B | Gas | | Liquid | |
| | | | Outside diameter | Minimum Wall thickness | Outside diameter | Minimum Wall thickness |
| **SUZ-KA09NA.TH<br>SUZ-KA12NA.TH** | 65 | 40 | ϕ3/8 | 0.0315 | ϕ1/4 | 0.0315 |
| **SUZ-KA15NA.TH** | 65 | 40 | ϕ1/2 | 0.0315 | ϕ1/4 | 0.0315 |
| **SUZ-KA18NA.TH** | 100 | 50 | ϕ1/2 | 0.0315 | ϕ1/4 | 0.0315 |

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## (3) M-Series Piping Correction Cooling

| Refrigerant piping length (ft) | | | |
|---|---|---|---|
| 25(std) | 40 | 65 | 100 |
| 1.000 | 0.954 | 0.878 | 0.771 |

## (4) M-Series Piping Correction Heating

| Refrigerant piping length (ft) | | | |
|---|---|---|---|
| 25(std) | 40 | 65 | 100 |
| 1.000 | 0.989 | 0.972 | 0.955 |

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## (1) Additional Refrigerant Charge (R410A: oz.)

NOTE: Refrigerant piping exceeding 25 ft. requires additional refrigerant charge according to the calcualation.

| Model | Outdoor unit precharged | Refrigerant piping length (one way): ft. | | | | | |
|---|---|---|---|---|---|---|---|
| | | 25ft | 30ft | 40ft | 50ft | 60ft | 65ft |
| **SUZ-KA09NA.TH** | 2 lb. 0 oz. | 0 | 1.62 | 4.86 | 8.10 | 11.34 | 12.96 |
| **SUZ-KA12NA.TH** | 2 lb. 9 oz. | | | | | | |
| **SUZ-KA15NA.TH** | | | | | | | |

**NOTE**: Calculation: X oz. = 1.62/5 oz./ft × (Refrigerant piping length (ft) - 25)

| Model | Outdoor unit precharged | Refrigerant piping length (one way): ft. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 25ft | 30ft | 40ft | 50ft | 60ft | 70ft | 80ft | 90ft | 100ft |
| **SUZ-KA18NA.TH** | 4 lb. 0 oz. | 0 | 1.08 | 3.24 | 5.40 | 7.56 | 9.72 | 11.88 | 14.04 | 16.20 |

**NOTE**: Calculation: X oz. = 1.08/5 oz./ft × (Refrigerant piping length (ft) - 25)


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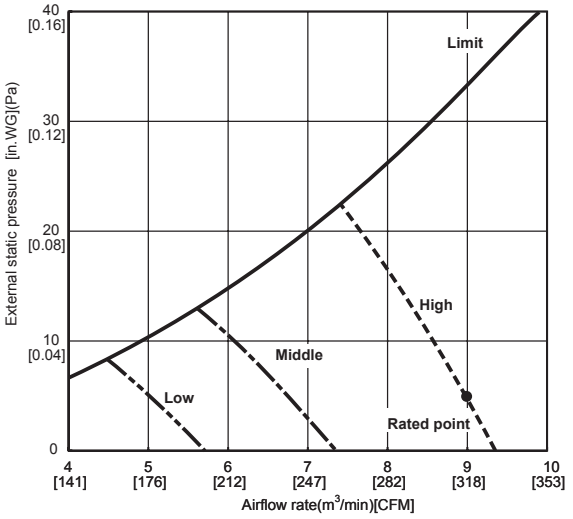
## (1) Indoor Unit

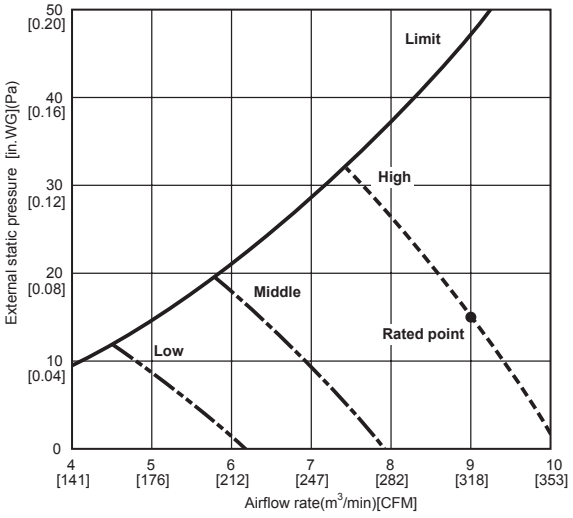
### SEZ-KD09NA4.TH

(External static pressure 0.02[in.WG](5Pa)) 208/230V 60Hz



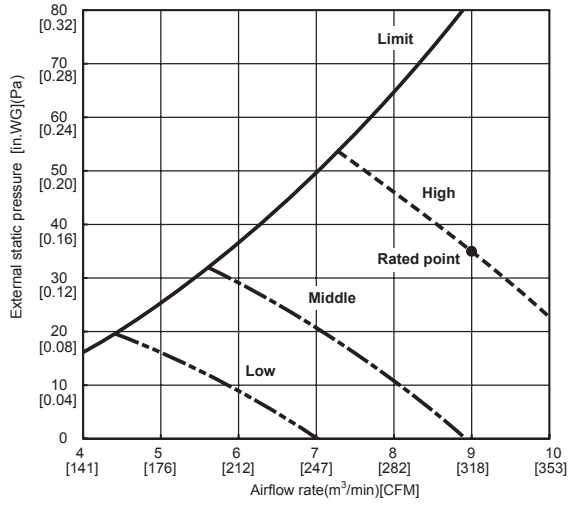

### SEZ-KD09NA4.TH

(External static pressure 0.06[in.WG](15Pa)) 208/230V 60Hz



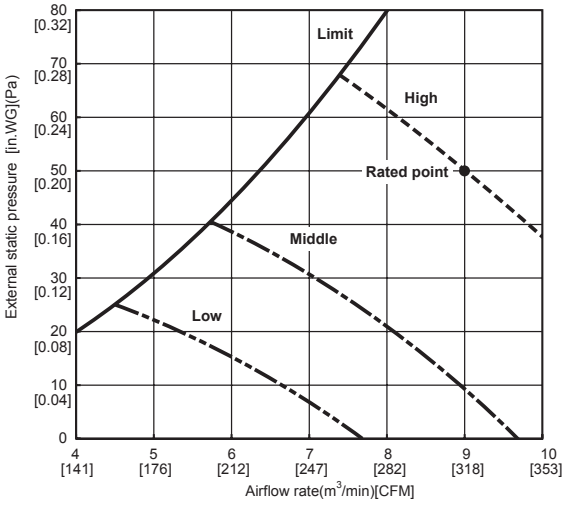

### SEZ-KD09NA4.TH

(External static pressure 0.14[in.WG](35Pa)) 208/230V 60Hz




### SEZ-KD09NA4.TH

(External static pressure 0.20[in.WG](50Pa)) 208/230V 60Hz

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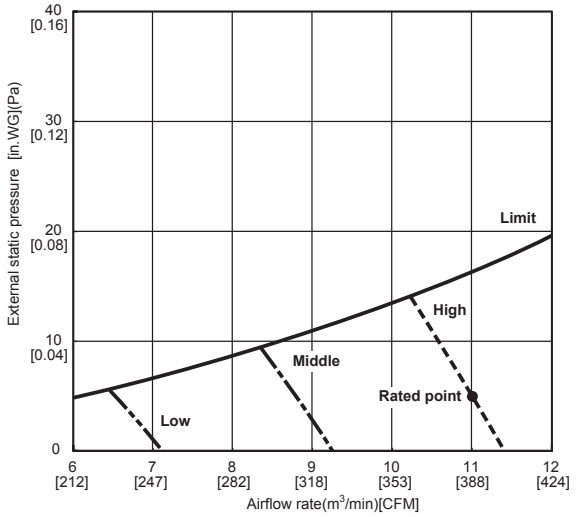
# 3-11. AIR FLOW DATA

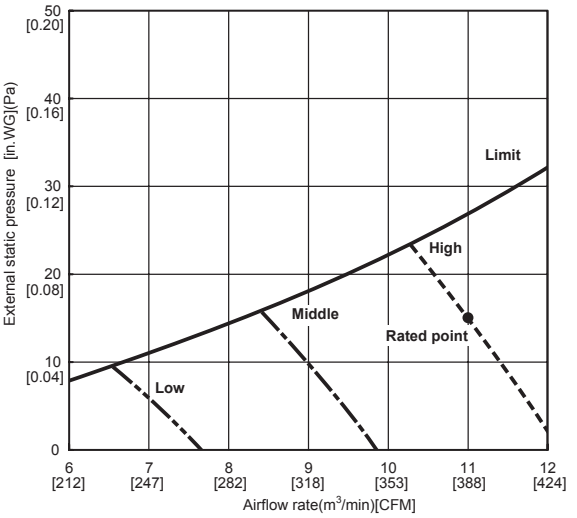
**SEZ-KD12NA4.TH**

(External static pressure 0.02[in.WG](5Pa)) 208/230V 60Hz



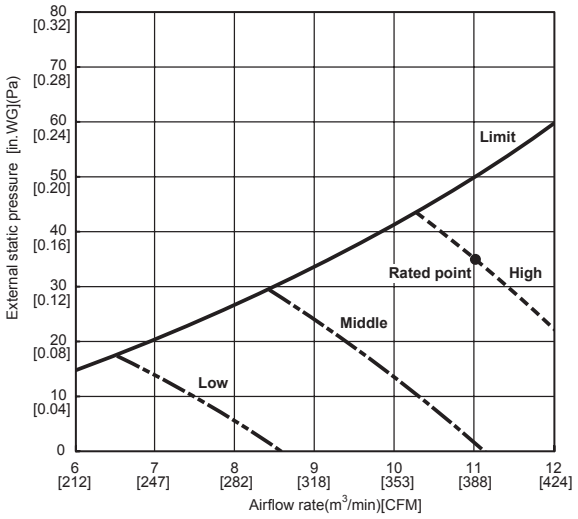

**SEZ-KD12NA4.TH**

(External static pressure 0.06[in.WG](15Pa)) 208/230V 60Hz



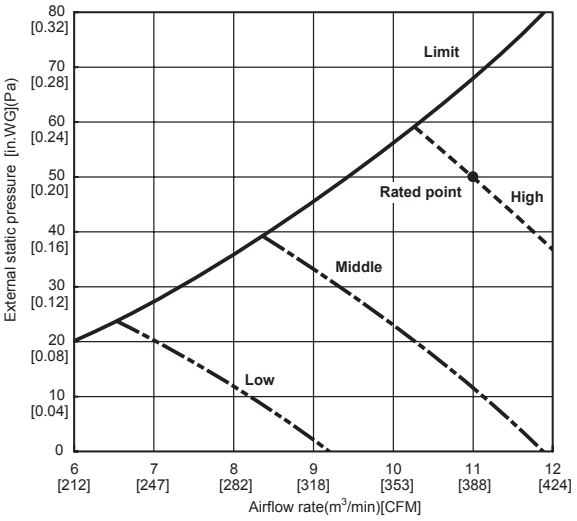

**SEZ-KD12NA4.TH**

(External static pressure 0.14[in.WG](35Pa)) 208/230V 60Hz




**SEZ-KD12NA4.TH**

(External static pressure 0.20[in.WG](50Pa)) 208/230V 60Hz

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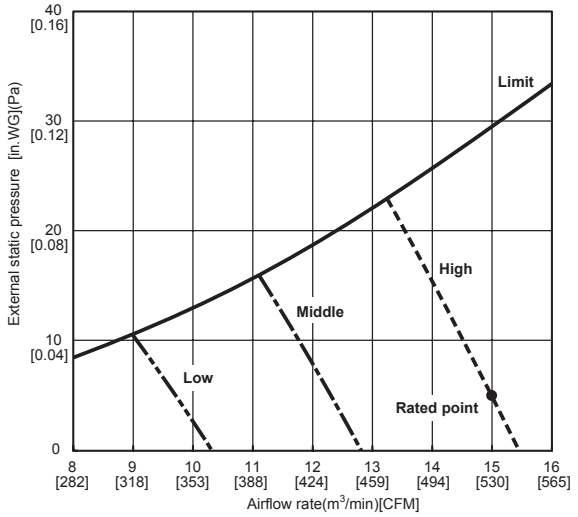
# 3-11. AIR FLOW DATA

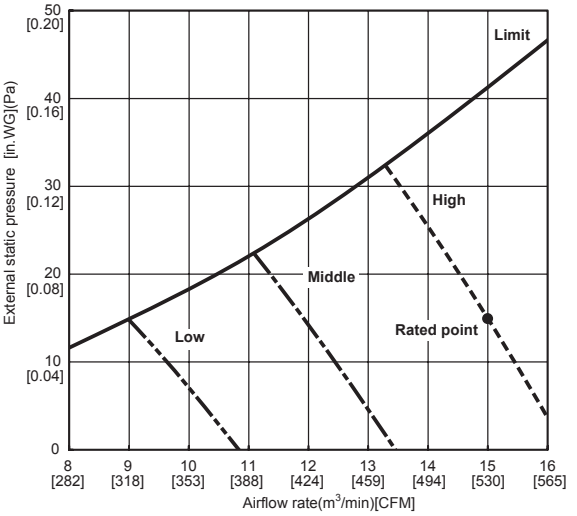
**SEZ-KD15NA4.TH**

(External static pressure 0.02[in.WG](5Pa)) 208/230V 60Hz



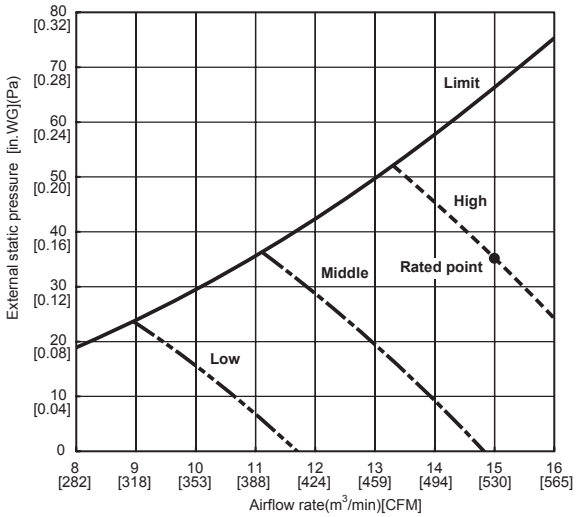

**SEZ-KD15NA4.TH**

(External static pressure 0.06[in.WG](15Pa)) 208/230V 60Hz



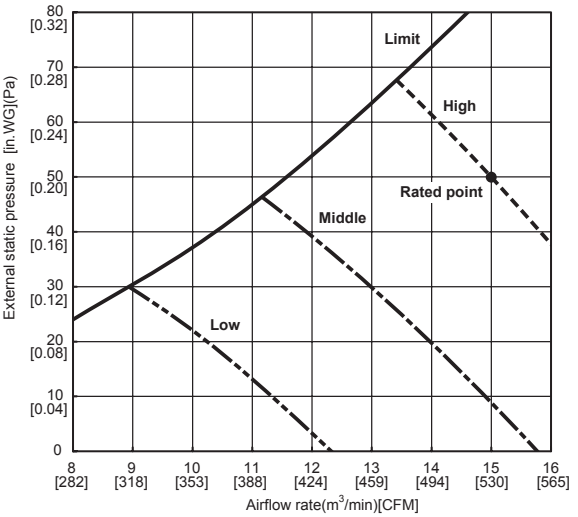

**SEZ-KD15NA4.TH**

(External static pressure 0.14[in.WG](35Pa)) 208/230V 60Hz




**SEZ-KD15NA4.TH**

(External static pressure 0.20[in.WG](50Pa)) 208/230V 60Hz

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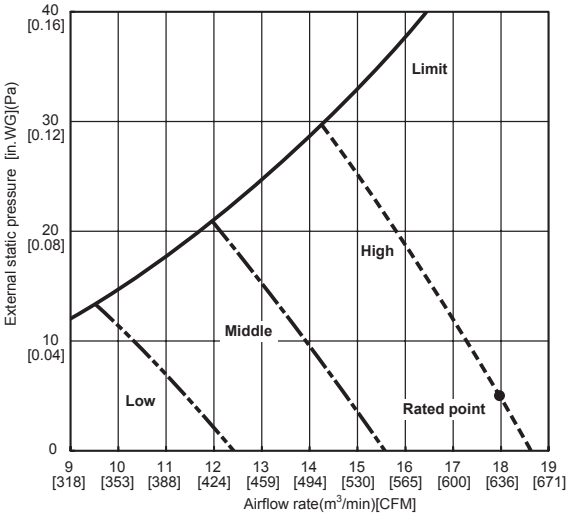
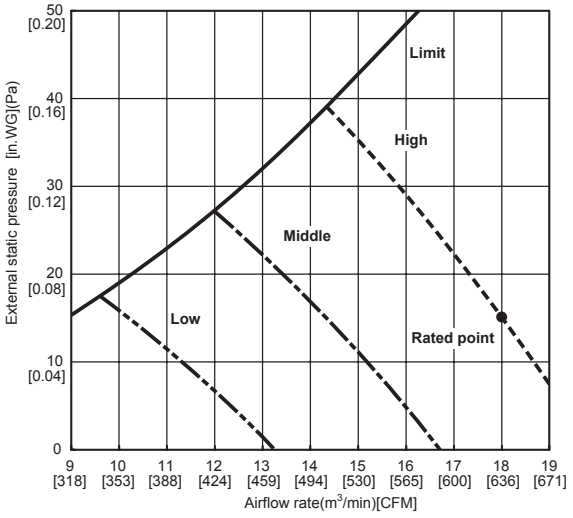
**SEZ-KD18NA4.TH**

(External static pressure 0.02[in.WG](5Pa)) 208/230V 60Hz



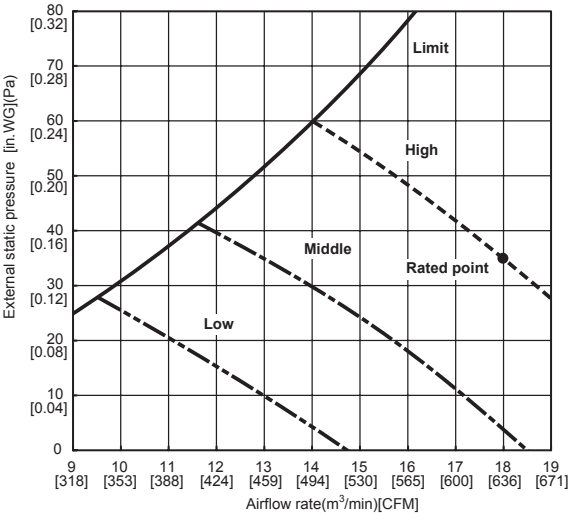

**SEZ-KD18NA4.TH**

(External static pressure 0.06[in.WG](15Pa)) 208/230V 60Hz



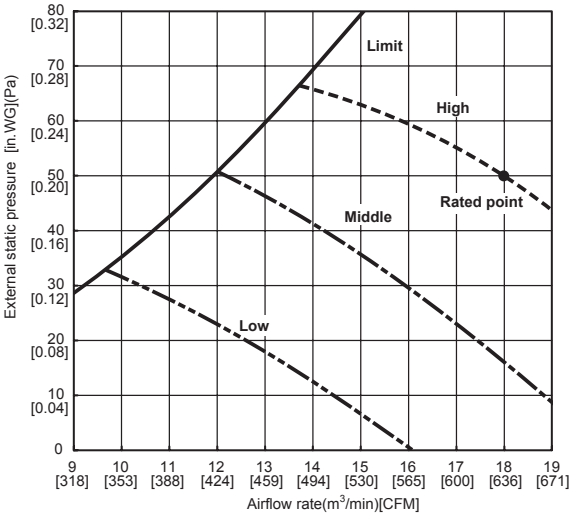

**SEZ-KD18NA4.TH**

(External static pressure 0.14[in.WG](35Pa)) 208/230V 60Hz




**SEZ-KD18NA4.TH**

(External static pressure 0.20[in.WG](50Pa)) 208/230V 60Hz

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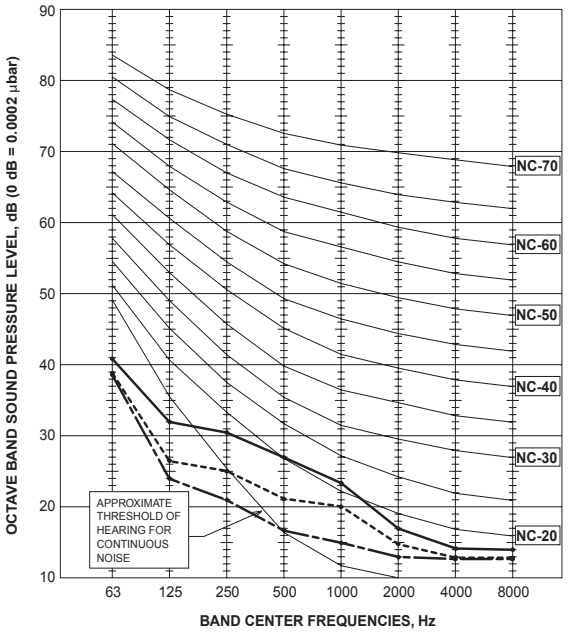
## (1) Indoor Unit

### SEZ-KD09NA4.TH

External static pressure:
0.02[in.WG](5Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 29 | |
| Middle | 25 | |
| Low | 22 | |

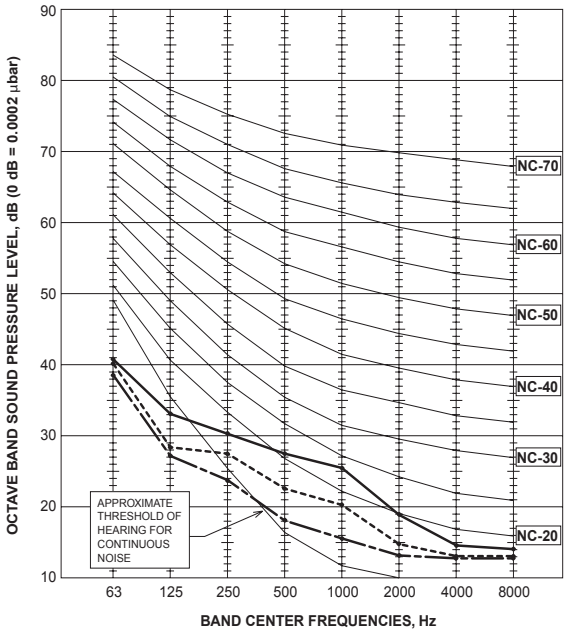



### SEZ-KD09NA4.TH

External static pressure:
0.06[in.WG](15Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 30 | |
| Middle | 26 | |
| Low | 23 | |

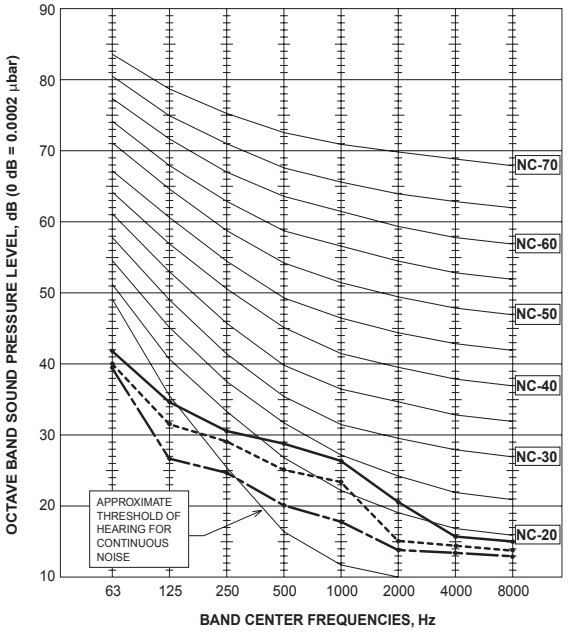



### SEZ-KD09NA4.TH

External static pressure:
0.14[in.WG](35Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 31 | |
| Middle | 28 | |
| Low | 24 | |

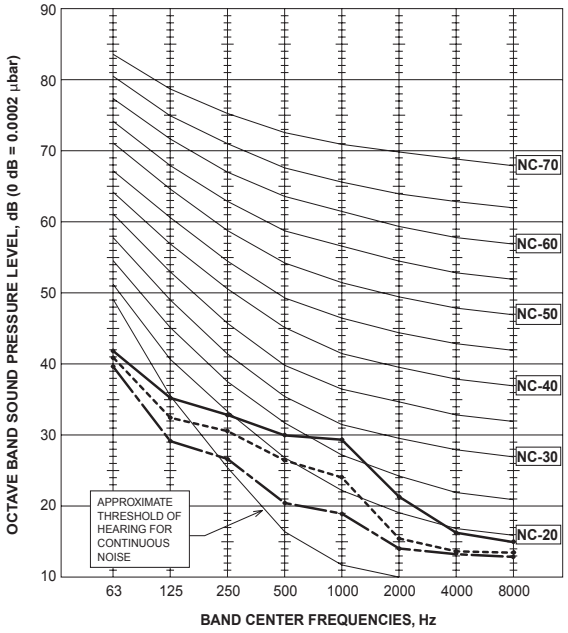



### SEZ-KD09NA4.TH

External static pressure:
0.20[in.WG](50Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 33 | |
| Middle | 29 | |
| Low | 25 | |




**NOTE: The sound level is measured in an anechoic room where echoes are few, when compressor stops. The sound may be bigger than displayed level under actual installation condition by surrounding echoes. The sound level can be higher by about 2 dB than the displayed level during cooling and heating operation.**

Due to continuing improvement, above specification may be subject to change without notice.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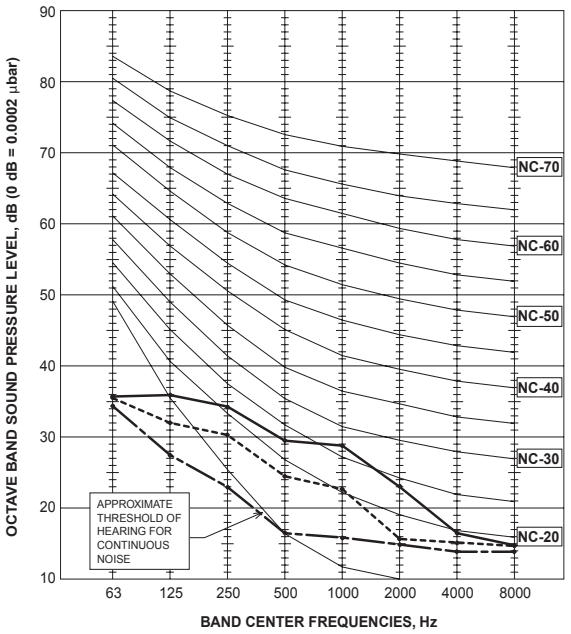
# 3-12. SOUND PRESSURE LEVELS

## SEZ-KD12NA4.TH

External static pressure:
0.02[in.WG](5Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 33 | |
| Middle | 28 | |
| Low | 23 | |

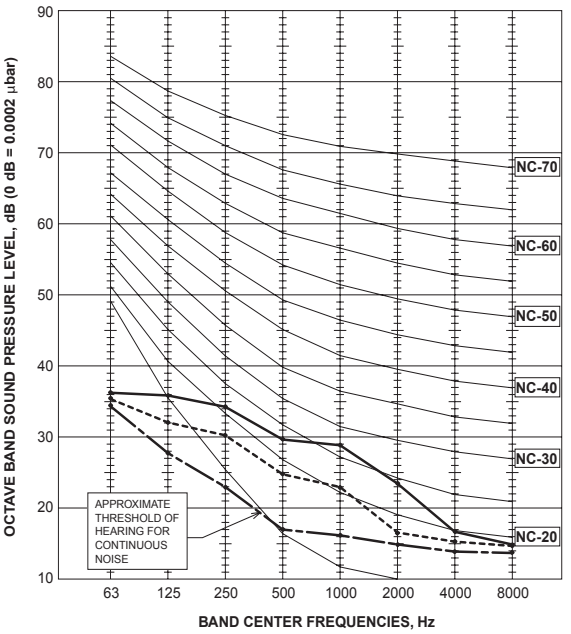



## SEZ-KD12NA4.TH

External static pressure:
0.06[in.WG](15Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 33 | |
| Middle | 28 | |
| Low | 23 | |

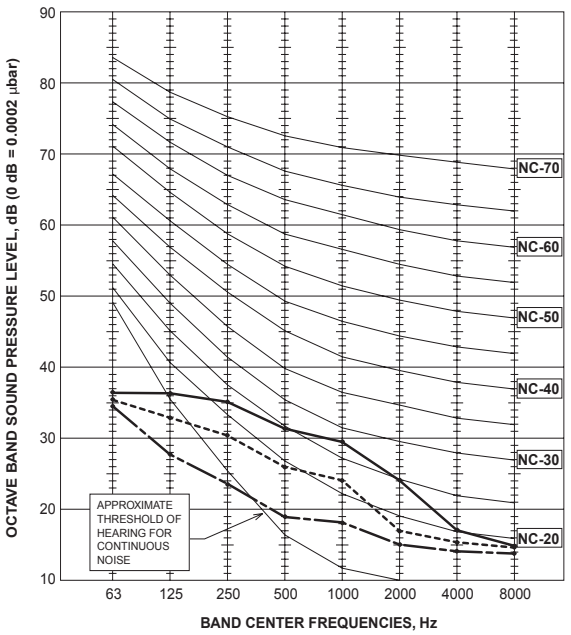



## SEZ-KD12NA4.TH

External static pressure:
0.14[in.WG](35Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 34 | |
| Middle | 29 | |
| Low | 24 | |

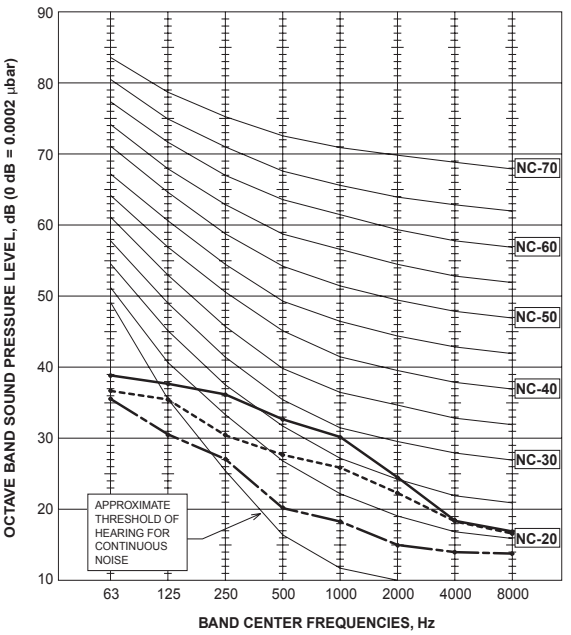



## SEZ-KD12NA4.TH

External static pressure:
0.20[in.WG](50Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 35 | |
| Middle | 31 | |
| Low | 25 | |




**NOTE: The sound level is measured in an anechoic room where echoes are few, when compressor stops. The sound may be bigger than displayed level under actual installation condition by surrounding echoes. The sound level can be higher by about 2 dB than the displayed level during cooling and heating operation.**

Due to continuing improvement, above specification may be subject to change without notice.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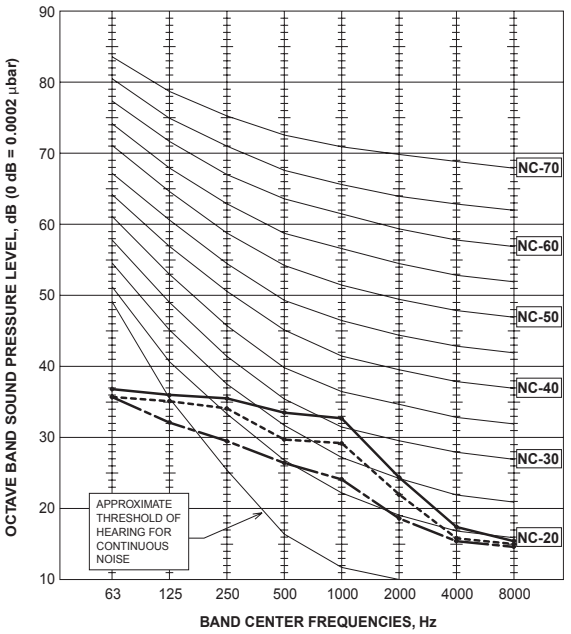
# 3-12. SOUND PRESSURE LEVELS

## SEZ-KD15NA4.TH

External static pressure:
0.02[in.WG](5Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 36 | |
| Middle | 33 | |
| Low | 29 | |

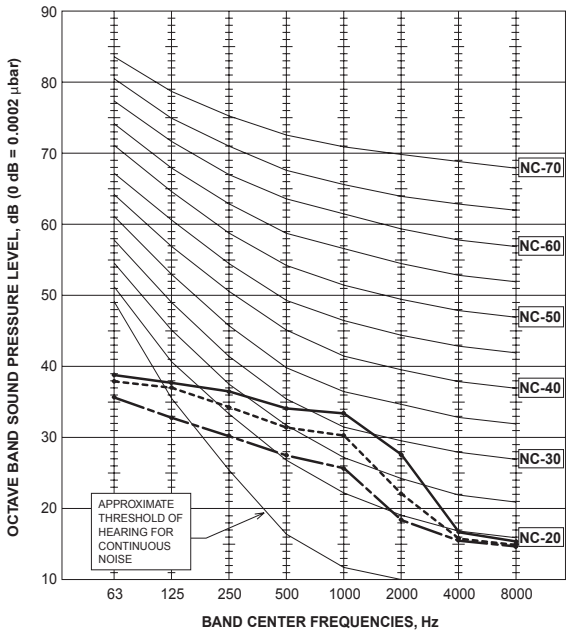



## SEZ-KD15NA4.TH

External static pressure:
0.06[in.WG](15Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 37 | |
| Middle | 34 | |
| Low | 30 | |

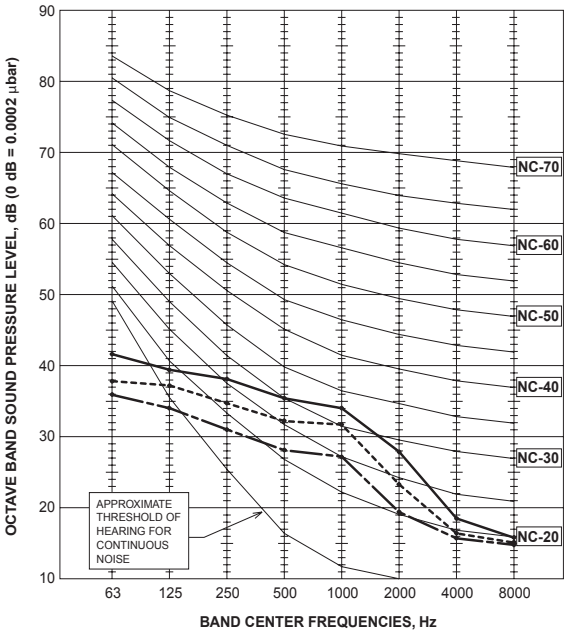



## SEZ-KD15NA4.TH

External static pressure:
0.14[in.WG](35Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 38 | |
| Middle | 35 | |
| Low | 31 | |

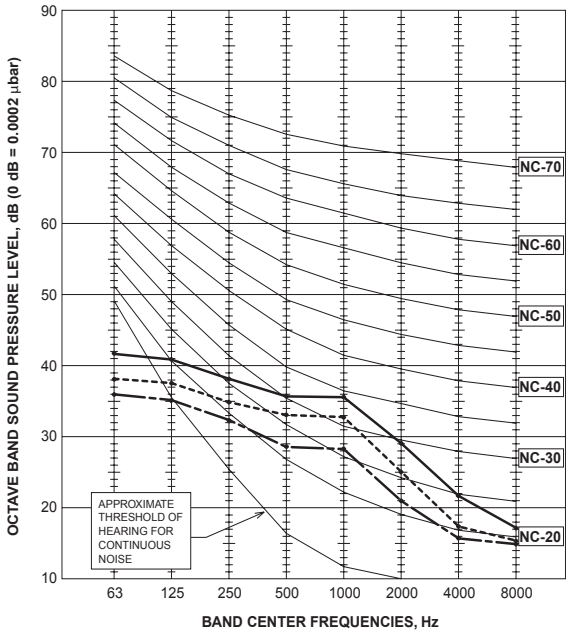



## SEZ-KD15NA4.TH

External static pressure:
0.20[in.WG](50Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 39 | |
| Middle | 36 | |
| Low | 32 | |




**NOTE: The sound level is measured in an anechoic room where echoes are few, when compressor stops. The sound may be bigger than displayed level under actual installation condition by surrounding echoes. The sound level can be higher by about 2 dB than the displayed level during cooling and heating operation.**

Due to continuing improvement, above specification may be subject to change without notice.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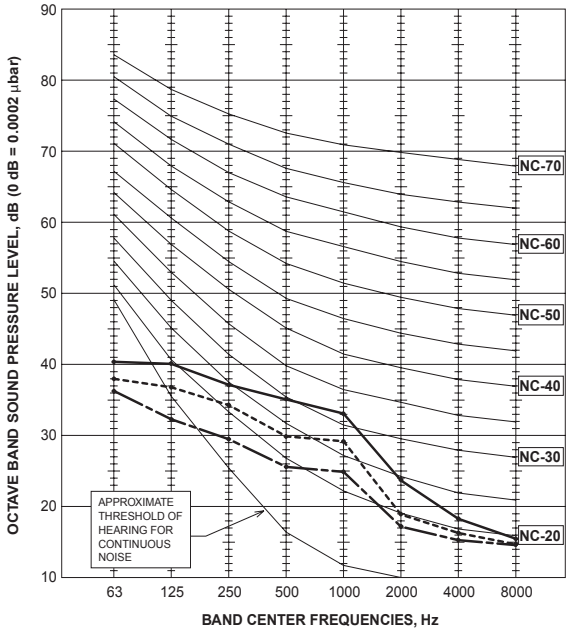
# 3-12. SOUND PRESSURE LEVELS

## SEZ-KD18NA4.TH

External static pressure:
0.02[in.WG](5Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 37 | |
| Middle | 33 | |
| Low | 29 | |

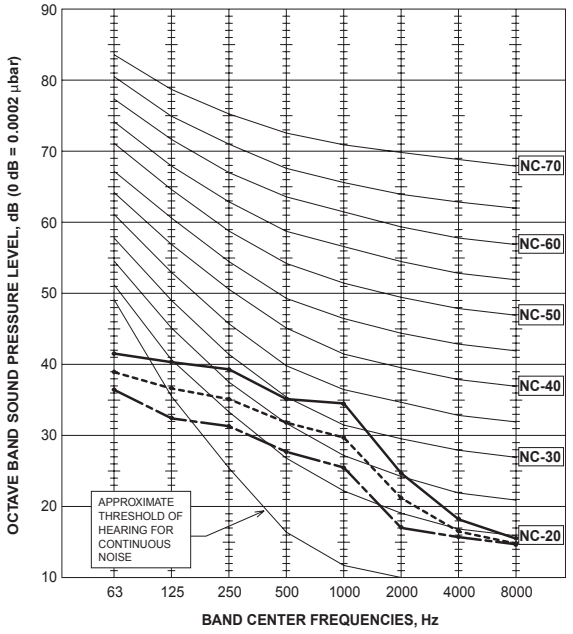



## SEZ-KD18NA4.TH

External static pressure:
0.06[in.WG](15Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 38 | |
| Middle | 34 | |
| Low | 30 | |

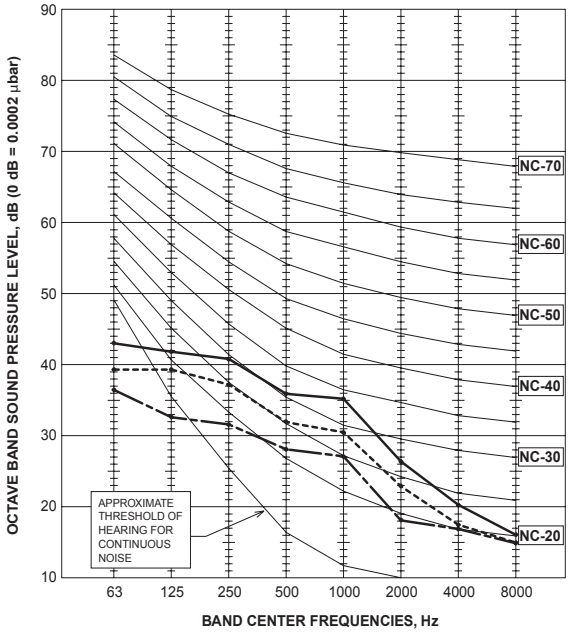



## SEZ-KD18NA4.TH

External static pressure:
0.14[in.WG](35Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 39 | |
| Middle | 35 | |
| Low | 31 | |

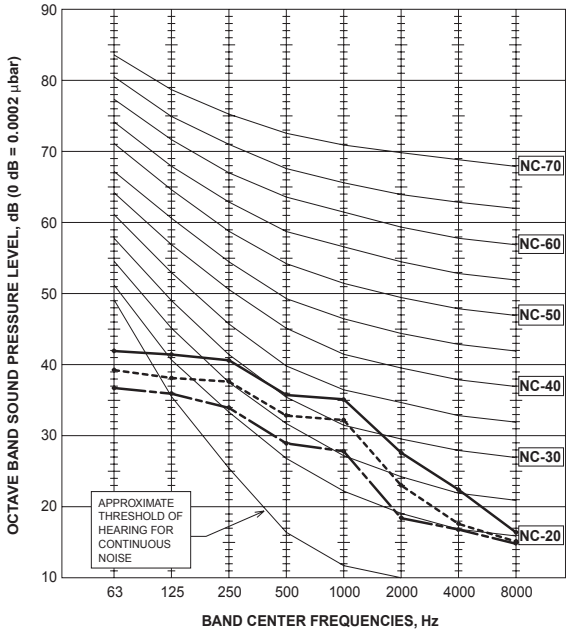



## SEZ-KD18NA4.TH

External static pressure:
0.20[in.WG](50Pa)

<60Hz>

| NOTCH | SPL(dB) | LINE |
|---|---|---|
| High | 39 | |
| Middle | 36 | |
| Low | 32 | |




**NOTE: The sound level is measured in an anechoic room where echoes are few, when compressor stops. The sound may be bigger than displayed level under actual installation condition by surrounding echoes. The sound level can be higher by about 2 dB than the displayed level during cooling and heating operation.**

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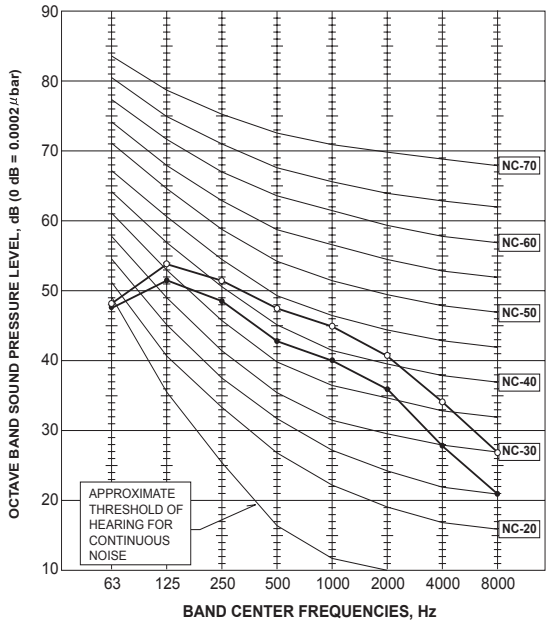
## (2) Outdoor Unit

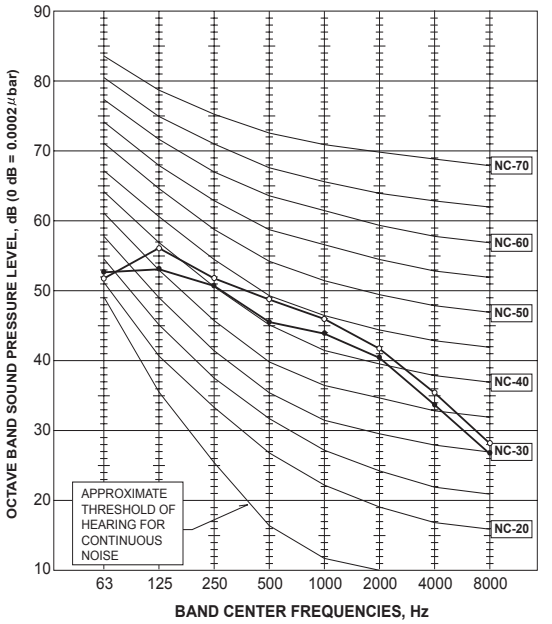
### SUZ-KA09NA.TH

| FUNCTION | SPL(dB(A)) | LINE |
|---|---|---|
| COOLING | 46 | ●—● |
| HEATING | 50 | ○—○ |



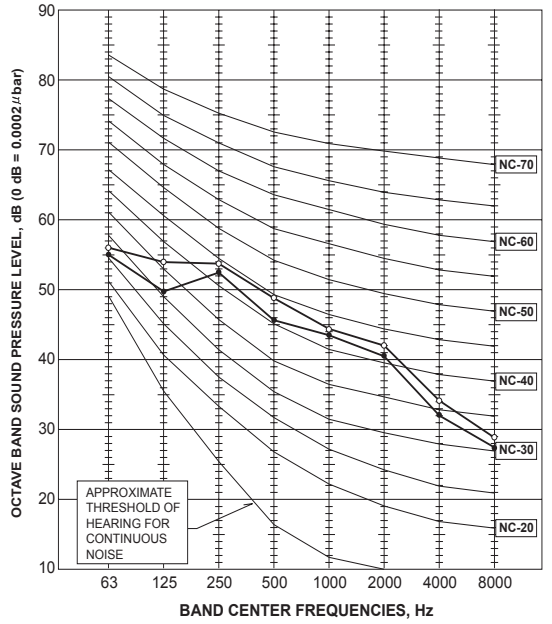

### SUZ-KA12NA.TH

| FUNCTION | SPL(dB(A)) | LINE |
|---|---|---|
| COOLING | 49 | ●—● |
| HEATING | 51 | ○—○ |



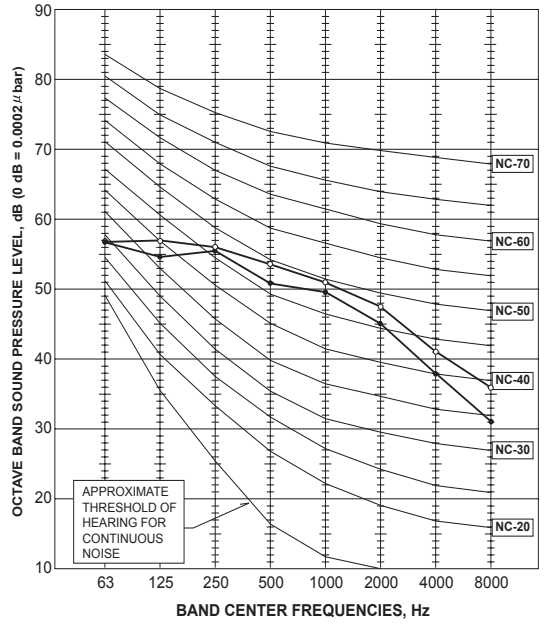

### SUZ-KA15NA.TH

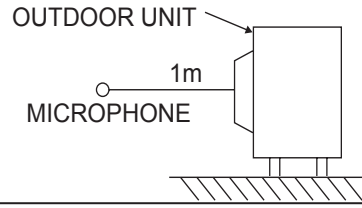
| FUNCTION | SPL(dB(A)) | LINE |
|---|---|---|
| COOLING | 49 | ●—● |
| HEATING | 51 | ○—○ |




### SUZ-KA18NA.TH

| FUNCTION | SPL(dB(A)) | LINE |
|---|---|---|
| COOLING | 54 | ●—● |
| HEATING | 56 | ○—○ |




Due to continuing improvement, above specification may be subject to change without notice.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## 3-13. STANDARD OPERATION RANGE

| | Rating | Guaranteed Voltage |
|---|---|---|
| Outdoor unit | 208/230V<br>60Hz<br>1 Phase | Min. 187V 208V 230V Max. 253V |

| Mode | Intake Air Temperature | Indoor | | Outdoor | |
|---|---|---|---|---|---|
| | Condition | DB (°F) | WB (°F) | DB (°F) | WB (°F) |
| Cooling | Standard temperature | 80 | 67 | 95 | — |
| | Maximum temperature | 90 | 73 | 115 | — |
| | Minimum temperature | 67 | 57 | 14 | — |
| | Maximum humidity | 78% | | — | |
| Heating | Standard temperature | 70 | 60 | 47 | 43 |
| | Maximum temperature | 80 | 67 | 75 | 65 |
| | Minimum temperature | 70 | 60 | 6 | 5 |

Due to continuing improvement, above specification may be subject to change without notice.


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## 3-14. ACCESSORIES

### (1) Indoor Unit

| Part Number | Descriptions | Applicable model |
|---|---|---|
| BRP-1 | Bottom Return Plate (Converts low profile ducted indoor unit from rear return to bottom return) | KD09 |
| BRP-2 | Bottom Return Plate (Converts low profile ducted indoor unit from rear return to bottom return) | KD12,15 |
| BRP-3 | Bottom Return Plate (Converts low profile ducted indoor unit from rear return to bottom return) | KD18 |
| C13-103 | Blue Diamond Sensor Extension Cable - 15 Ft. | All Models |
| CN24RELAY-KIT-CM3 | Relay Kit for external heater adapter connects to CN24 on indoor control board | |
| DPLS1 | Drain Pan Level Sensor/Control for indoor unit shut off to prevent Drain Pan Overflow | |
| FBL 1-1 | FB SERIES Filter Box with MERV 8 Filters | KD09 |
| FBL 1-2 | FB SERIES Filter Box with MERV 8 Filters | KD12,15 |
| FBL 1-3 | FB SERIES Filter Box with MERV 8 Filters | KD18 |
| MAC-333IF-E | System Control Interface - MA, Contact terminal, and M-NET Control Adapter, Supplemental heat and humidifier adaptor | All Models |
| MCCH1 | Portable Central Controller (PCC) - controls up to 16 RedLINK Zones - requires an MHK1 on each indoor unit | |
| MHK1 | Wireless wall-mounted remote controller (MRCH1) with a signal receiver (MIFH1) and cable (MRC1) all in one kit | |
| MOS1 | Outdoor Air Sensor - reads both outside temperature and humidity displayed on MRCH1 and MCCH1 if installed | |


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## (1) Indoor Unit (cont.)

| Part Number | Descriptions | Applicable model |
|---|---|---|
| PAC-715AD | Wire for Remote on/off with CN32 connector | All Models |
| PAC-725AD | Connector and wire for Operation status/error, booster fan control for fresh air using CN51 | |
| PAC-SE41TS-E | Remote temperature sensor for indoor units | |
| PAC-SF40RM-E | Remote Operation Adapter with wire terminals for remote on/off and operation status/error | |
| PAR-FA32MA | Wireless Signal Receiver used with PAR-FL32MA | |
| PAR-FL32MA | Wireless Remote Controller used with PAR-FA32MA | |
| PAC-YT53CRAU | Simple MA Remote Controller | |
| PAR-31MAA | Wall mounted, hard wired, multi-functional controller: used specifically for grouping (up to 16 units), twinning, lead/lag, and 7 day programmable applications | |
| RCMKP1CB | Lockdown Bracket for wireless, hand-held, remote controllers | |
| SI30-115 | Mini-Condensation pump - 115 volt application | |
| SI30-230 | Mini-Condensation pump - 230 volt application | |
| TAZ-MS303 | Advanced Blue Diamond Mini-Condensation pump w/ Resevoir & Sensor - 208/230 volt application | |


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## (1) Indoor Unit (cont.)

| Part Number | Descriptions | | Applicable model |
|---|---|---|---|
| MLS143812T-15 | Diamondback Linesets | 1/4 x 3/8 x 15' / 1/2" Twin-Tube Insulation | KD09,12 |
| MLS143812T-30 | | 1/4 x 3/8 x 30' / 1/2" Twin-Tube Insulation | |
| MLS143812T-50 | | 1/4 x 3/8 x 50' / 1/2" Twin-Tube Insulation | |
| MLS143812T-65 | | 1/4 x 3/8 x 65' / 1/2" Twin-Tube Insulation | |
| MLS141212T-15 | | 1/4 x 1/2 x 15' / 1/2" Twin-Tube Insulation | KD15,18 |
| MLS141212T-30 | | 1/4 x 1/2 x 30' / 1/2" Twin-Tube Insulation | |
| MLS141212T-50 | | 1/4 x 1/2 x 50' / 1/2" Twin-Tube Insulation | |
| MLS141212T-65 | | 1/4 x 1/2 x 65' / 1/2" Twin-Tube Insulation | |
| MLS141212T-100 | | 1/4 x 1/2 x 100' / 1/2" Twin-Tube Insulation | |


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## (2) Outdoor Unit

| Part Number | Descriptions | Applicable model |
|---|---|---|
| CWMB1 | 4 piece ( 1 pair) condensing unit wall mounting brackets - painted steel | All Models |
| DSD-400P | Outdoor Unit 3-1/4 inch Mounting Base (Pair) - Plastic | |
| MAC-640BH-U | Outdoor Unit Drain Pan Heater used during defrost cycle | KA09,12,15 |
| MAC-641BH-U | Outdoor Unit Drain Pan Heater used during defrost cycle | KA18 |
| ULTRILITE1 | Condensing Unit Mounting Pad 16” x 36” x 3” | All Models |


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